

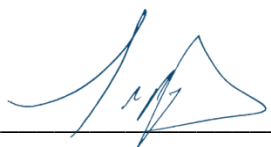
Cultural Resources Inventory and Impact Assessment for the County Flume Trail Project, San Diego County, California

Lead Agency:

County of San Diego
Department of Parks and Recreation
Contact: Ms. Jennifer Price
5500 Overland Avenue, Suite 410
San Diego, CA 92123
(858) 966-1375

Preparer:

ICF International
9775 Businesspark Avenue, Suite 200
San Diego, CA 92131
(858) 578-8964



Michael R. Bever, Ph.D., RPA
Principal Investigator

July 2012

ICF International. 2012. *Cultural Resources Inventory and Impact Assessment for the County Flume Trail Project, San Diego County, California*. July. (ICF 0026.12). San Diego, CA.
Prepared for County of San Diego Department of Parks and Recreation, San Diego, California.

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Author(s): Hoffman, Robin, MA
Bever, Michael R., PhD

Consulting Firm: ICF International
9775 Businesspark Ave, Suite 200
San Diego, CA 92131
(858) 578-8964

Client: San Diego County Department of Parks and Recreation

Report Date: July 2012

Report Title: Cultural Resources Inventory and Impact Assessment for the County
Flume Trail Project, San Diego County, California

Type of Study: Phase I Field Survey and Impacts Assessment

New Sites: 15 additional features incorporated into CA-SDI-11296H

Updated Sites: CA-SDI-11296H

USGS Quadrangle: El Cajon Mountain, California; Alpine, California: 7.5' series
(1:24,000)

Acreage: Approximately 21.47 acres surveyed: 2.53-mile long 70 foot corridor

Keywords: Phase I Survey and Inventory; CEQA Impact Assessment; San Diego
Flume; Cape Horn Tunnel; El Capitan Dam; Lakeside, San Diego
County; El Monte Regional Park

TABLE OF CONTENTS

| <u>Section</u> | <u>Page</u> |
|--|--------------------|
| LIST OF ABBREVIATIONS/ACRONYMS | v |
| EXECUTIVE SUMMARY | vii |
| 1.0 INTRODUCTION..... | 1 |
| 1.1. Project Description..... | 1 |
| 1.2. Existing Conditions | 5 |
| 1.2.1. Environmental Setting | 5 |
| 1.2.2. Records Search Results..... | 16 |
| 1.2.3. Other Historical Research | 19 |
| 1.3. Applicable Regulations | 21 |
| 1.3.1. California Environmental Quality Act (CEQA)..... | 21 |
| 1.3.2. San Diego County Local Register of Historical Resources (Local Register) | 23 |
| 2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE | 25 |
| 2.1. County Guidelines..... | 25 |
| 3.0 RESEARCH DESIGN..... | 26 |
| 3.1. Prominent Studies in the Vicinity of the Project Area..... | 26 |
| 3.1.1. Prominent Prehistoric Archaeology Studies..... | 26 |
| 3.1.2. Prominent Historical Archaeology Studies | 26 |
| 3.2. Research Context | 27 |
| 3.2.1. Prehistoric Research Context..... | 27 |
| 3.2.2. Historical Research Context | 27 |
| 4.0 ANALYSIS OF PROJECT EFFECTS..... | 29 |
| 4.1. Methods..... | 29 |
| 4.1.1. Survey Methods | 29 |
| 4.1.2. Native American Participation and Consultation | 30 |
| 4.2. Results..... | 31 |
| 5.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION..... | 52 |
| 5.1. Resource Importance..... | 52 |
| 5.1.1. CA-SDI-11296H | 52 |
| 5.2. Impact Identification | 53 |
| 5.2.1. Direct Impacts | 53 |
| 5.2.2. Indirect Impacts | 54 |
| 5.2.3. Cumulative Impacts..... | 55 |
| 6.0 MANAGEMENT CONSIDERATIONS—MITIGATION MEASURES AND DESIGN CONSIDERATIONS | 56 |
| 6.1. Unmitigated Impacts | 56 |
| 6.2. Mitigated Impacts..... | 56 |
| 6.3. Effects Found Not to be Significant | 58 |

| | | |
|------------|---|-----------|
| 7.0 | REFERENCES..... | 59 |
| 8.0 | LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED..... | 70 |
| 9.0 | LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS..... | 71 |

APPENDICES

Appendix A Records Search Confirmation
Appendix B Native American Coordination

CONFIDENTIAL APPENDICES

Appendix C Confidential Figures C-1 to C-5 – Resource Location Maps
Appendix D Confidential DPR 523 Site Record Form

LIST OF TABLES

| <u>Title</u> | <u>Page</u> |
|--|--------------------|
| 1-1 Cultural Resource Studies within a One-mile Radius of the Project Area | 17 |
| 1-2 Cultural Resources Recorded within a One-mile Radius of the Preserve | 19 |
| 4-1 Historical Resources Identified During the Field Survey | 32 |

LIST OF FIGURES

| <u>Title</u> | <u>Page</u> |
|--|--------------------|
| 1-1 Regional Location Map | 2 |
| 1-2 Project Vicinity Map | 3 |
| 1-3 Aerial Photo of Preserve | 4 |
| 1-4 Dedication of the San Diego Flume, 1889..... | 12 |
| 1-5 Workers during San Diego Flume Construction, Date and Location Unknown..... | 13 |
| 1-6 San Diego Flume Trestle Under Construction, Date and Location Unknown..... | 14 |
| 1-7 San Diego Flume Transporting Water, Date and Location Unknown..... | 15 |
| 4-1 Overview of Project Area, View W, from Project Area E Terminus | 30 |
| 4-2 Dense Vegetation within Project Area, View E, from ~300m NE of ICF-FT-03 | 31 |
| 4-3 ICF-FT-02, View NE..... | 33 |
| 4-4 ICF-FT-03, Overhead Facing NE | 34 |
| 4-5 ICF-FT-04, View NNW, from S Terminus | 35 |
| 4-6 ICF-FT-04, View ENE, Central Portion from Downslope | 36 |
| 4-7 ICF-FT-05, View NNW, From SE Terminus..... | 37 |
| 4-8 ICF-FT-06, View S, From N Terminus..... | 38 |
| 4-9 ICF-FT-07, View N, From SSE Terminus | 39 |

| | | |
|------|---|----|
| 4-10 | ICF-FT-08, View S, From Downslope..... | 40 |
| 4-11 | ICF-FT-10, View W | 41 |
| 4-12 | ICF-FT-10, Overhead facing NW, Inscription in Concrete | 42 |
| 4-13 | ICF-FT-11, View NE..... | 43 |
| 4-14 | San Diego Flume and Tunnel Transporting Water, Unknown Date and Location | 43 |
| 4-15 | Tunnel No. 4-Cape Horn Progress Report, ca. 1888..... | 44 |
| 4-16 | ICF-FT-12, View E, From W Terminus | 45 |
| 4-17 | ICF-FT-13, View E, From W Terminus | 46 |
| 4-18 | ICF-FT-14, View W, From E Terminus | 47 |
| 4-19 | ICF-FT-15, View SE, From NW Terminus | 48 |
| 4-20 | ICF-FT-16, View NE, From SW Terminus | 49 |
| 4-21 | ICF-FT-17 (Flume Benchcut), View W, from Project Area E Terminus | 50 |

LIST OF ABBREVIATIONS/ACRONYMS

| | |
|----------------|---|
| amsl | above mean sea level |
| BLM | Bureau of Land Management |
| BP | before present |
| CEQA | California Environmental Quality Act |
| CHL | California Historical Landmarks |
| CHRIS | California Historical Resources Information System |
| cm | centimeters |
| County | County of San Diego |
| CRHR | California Register of Historical Resources |
| DPR | County of San Diego Department of Parks and Recreation |
| Flume | San Diego Flume |
| ft | foot |
| GLO | Government Land Office |
| GPR | ground penetrating radar |
| GPS | Global Positioning System |
| HRI | California Historic Resources Inventory |
| in | inches |
| Local Register | San Diego County Local Register of Historical Resources |
| m | meters |
| MH | maximum height |
| mi | mile |
| ML | maximum length |
| MLD | Most Likely Descendant |
| MW | maximum width |
| NAHC | Native American Heritage Commission |
| NEPA | National Environmental Policy Act |
| NHPA | National Historical Preservation Act |

| | |
|----------|--------------------------------------|
| NRHP | National Register of Historic Places |
| Park | El Monte Regional Park |
| Project | proposed Flume Trail Project |
| PVC | poly-vinyl chloride |
| Red Tail | Red Tail Monitoring & Research, Inc. |
| SCIC | South Coastal Information Center |

EXECUTIVE SUMMARY

The purpose of this report is to analyze the potential effects on cultural resources associated with the proposed Flume Trail Project (Project). This analysis is intended to support the County of San Diego's (County) review process under the California Environmental Quality Act (CEQA) and other applicable local and state regulations. Specifically, this report consists of an inventory and evaluation of the historical resources present within the project area. The analysis presented herein follows applicable state and local rules and regulations including CEQA, and the County of San Diego's Local Register of Historical Resources.

DPR proposes to construct an approximately 2.5-mile (mi) long multi-use recreational trail on land located within the existing historic San Diego Flume (Flume) benchcut just south of El Monte Regional Park (Park), approximately 3.5 miles northeast of Lakeside, California. The proposed trail will connect, at its southern terminus, to the recently constructed El Monte Trail and will follow the approximately ten-foot wide existing benchcut. The survey area for this study included the existing 50-foot (ft) wide County-owned portion of the Flume alignment/benchcut and an additional 20-ft wide easement (buffer) running along the entire trail alignment adjacent to the downhill boundary of the County-owned property. This 20-ft wide easement will only be used to avoid steep portions of drainages within the historic Flume alignment.

A proposed trail alignment and two alternatives are proposed for the Project. The proposed trail alignment will generally stay within the existing Flume benchcut; construction and maintenance of the trail will impact a ten foot wide alignment. The first alternative involves the proposed trail alignment but would include the construction of a structural crossing at Drainage #7. The second alternative would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside of the County-owned easement. This alternative would require acquisition of additional easements from adjacent property owners, and this area has not been surveyed for cultural resources as part of the current study. Construction related activities for the trail will consist of minor alteration, such as vegetation and boulder removal, and minor grading and ground leveling.

The objective of this study was to identify and evaluate existing resources, assess impacts to those resources, and provide mitigation measures and management recommendations to avoid significant impacts. The study consisted of archival research and a field survey. Newly identified resources were recorded using State of California DPR Primary Record and Location Map forms.

As a result of the survey fifteen historical resources, all historic-period, were identified within the project area. One of these is the previously recorded CA-SDI-11296H, the Flume itself, although the newly recorded portion within the project area was given a temporary number (ICF-FT-17) for purposes of recordation. The remaining fourteen were newly recorded. Ten of these resources are stacked cobble stabilization walls located on the downslope side of the Flume benchcut; one resource consists of a pair of redwood planks; one is a trestle footing cut into bedrock; and two are entrances to a tunnel (the same tunnel). All identified resources are associated with the Flume, and will be included in a site record update as individual contributing features to the site. This study has determined that CA-SDI-11296H (San Diego Flume) is a significant historical resource eligible for listing on the CRHR under Criteria 1 and 3. The features range in condition from fair to excellent. No prehistoric resources, isolates, resources of

unknown age, multi-component sites, or other objects, infrastructure, or locations of historic activities were identified.

Impacts to cultural resources could occur during trail construction, maintenance and use. However, all significant impacts should be avoidable with the implementation of several mitigation measures. These are primarily avoidance and long term monitoring measures. The mitigation measures include 1) prior to construction, temporary fencing around all identified historical resources (elements of CA-SDI-11296H) within the project area except for the benchcut (ICF-FT-17); 2) pre-construction cultural resources sensitivity training for all construction personnel, addressing both the types of resources that might be identified, as well as the procedures to be followed in the unlikely event that unrecorded cultural resources are encountered; 3) installation of interpretive signage, particularly at the tunnel entrances (ICF-FT-10 and ICF-FT-11), to inform trail users of the presence and significance of historical resources along the trail; 4) pre-construction verification (using GIS data) that ICF-FT-03 will be avoided if a structure is constructed at Drainage #7; and 5) additional surveys if a trail alternative that deviates from the current study area is selected.

In addition to these mitigation measures, several implementation measures related to trail maintenance and long term monitoring are proposed. These include 1) verification that trail maintenance is confined to the existing trail alignment and conducted in such a manner as to avoid impacting historical resources within the project area, and 2) annual condition monitoring of the historical resources along the trail for signs of vandalism or other alterations, and the implementation of corrective measures to rectify potential impacts.

Given the location and geology of the project area, there is little potential for buried cultural resources. For this reason, and because the Project will involve only minimal ground disturbance, archaeological and Native American monitoring is not recommended. For the same reasons, there is very little potential for the unanticipated discovery of human remains. However, in the unlikely event that human remains are encountered, specific actions must take place pursuant to State and County legislation.

.

1.0 INTRODUCTION

A Phase I cultural resources survey of the County of San Diego (County) Department of Parks and Recreation (DPR) proposed Flume Trail Project (Project) was completed by ICF International. DPR proposes to construct an approximately 2.5-mile (mi) long multi-use recreational trail on land located within the existing historical San Diego Flume (Flume) benchcut just south of El Monte Regional Park (Park). The objective of the study was to identify and evaluate existing resources, analyze potential impacts to cultural resources resulting from the proposed Project, and identify mitigation measures and management recommendations to avoid significant impacts to cultural resources.

This study consisted of archival research and a field survey. Newly identified resources were recorded using State of California DPR Primary Record and Location Map forms. This report summarizes the cultural resources inventory for the project area.

1.1. Project Description

DPR proposes the construction of a recreational trail on the existing historical Flume benchcut just south of El Monte Regional Park. The trail will connect, at its southern terminus, to the recently constructed El Monte Trail and will generally follow the approximately ten-foot wide existing benchcut. The trail alignment extends for 2.5 miles. The survey area for this study included the existing 50-foot (ft) wide County-owned portion of the Flume alignment/benchcut and an additional 20-ft wide easement (buffer) running along the entire alignment adjacent to the uphill boundary of the County-owned property. This 20-ft wide easement will only be used to avoid steep portions of drainages within the Flume alignment.

The proposed trail alignment will generally stay within the existing Flume benchcut; construction and maintenance of the trail would impact an approximately ten foot wide alignment. Construction related activities for the trail will consist of minor alteration, such as vegetation and boulder removal, and minor grading and ground leveling. In addition, two alternatives are proposed for the Project. One alternative involves the proposed trail alignment but would include the construction of a structural crossing at Drainage #7. The second alternative would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside of the County-owned easement. This alternative would require acquisition of additional easements from adjacent property owners.

The proposed project is located in an unsectioned portion of Township 15 South Range 1 East within the historic El Cajón Mexican Land Grant, and appears on the El Cajon Mountain, California and Alpine, California USGS 7.5-minute series topographic maps (USGS 1988a, 1988b). Nearby communities and significant features include: the community of Lakeside, California, approximately 3.5 miles to the southwest; the El Capitan Reservoir, approximately 1.4 miles to the east; and Lake Jennings, approximately 1.7 miles to the southwest. Near to the project area are the El Monte Regional Park, located just north of the middle portion of the project area, and Lake Jennings, located approximately one mile east of the project area's easternmost extent. The project area consists of the narrow Flume benchcut and adjacent densely vegetated steep foothills and drainages. Figures 1-1 and 1-2 illustrate the project's location, and Figure 1-3 provides aerial imagery of the project area.

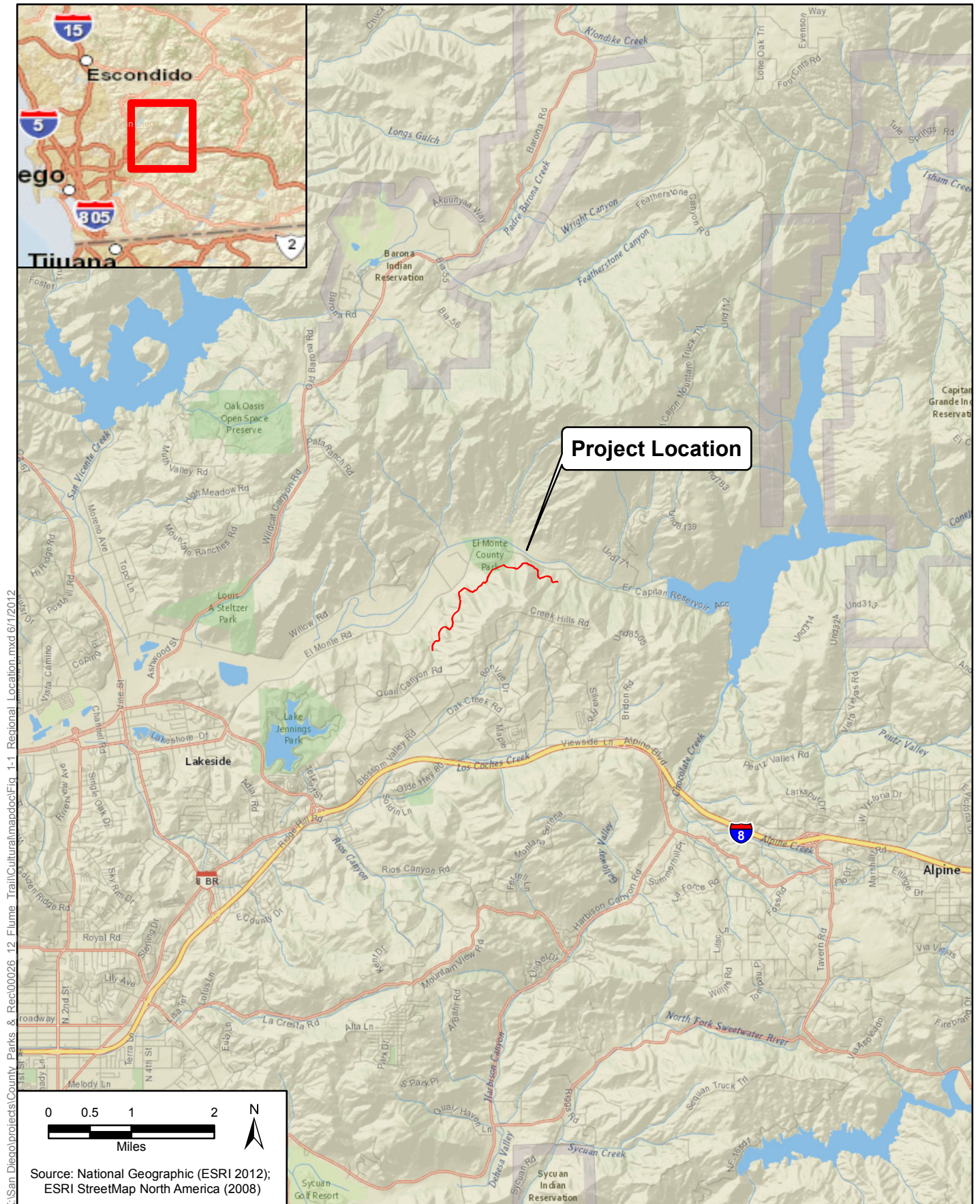
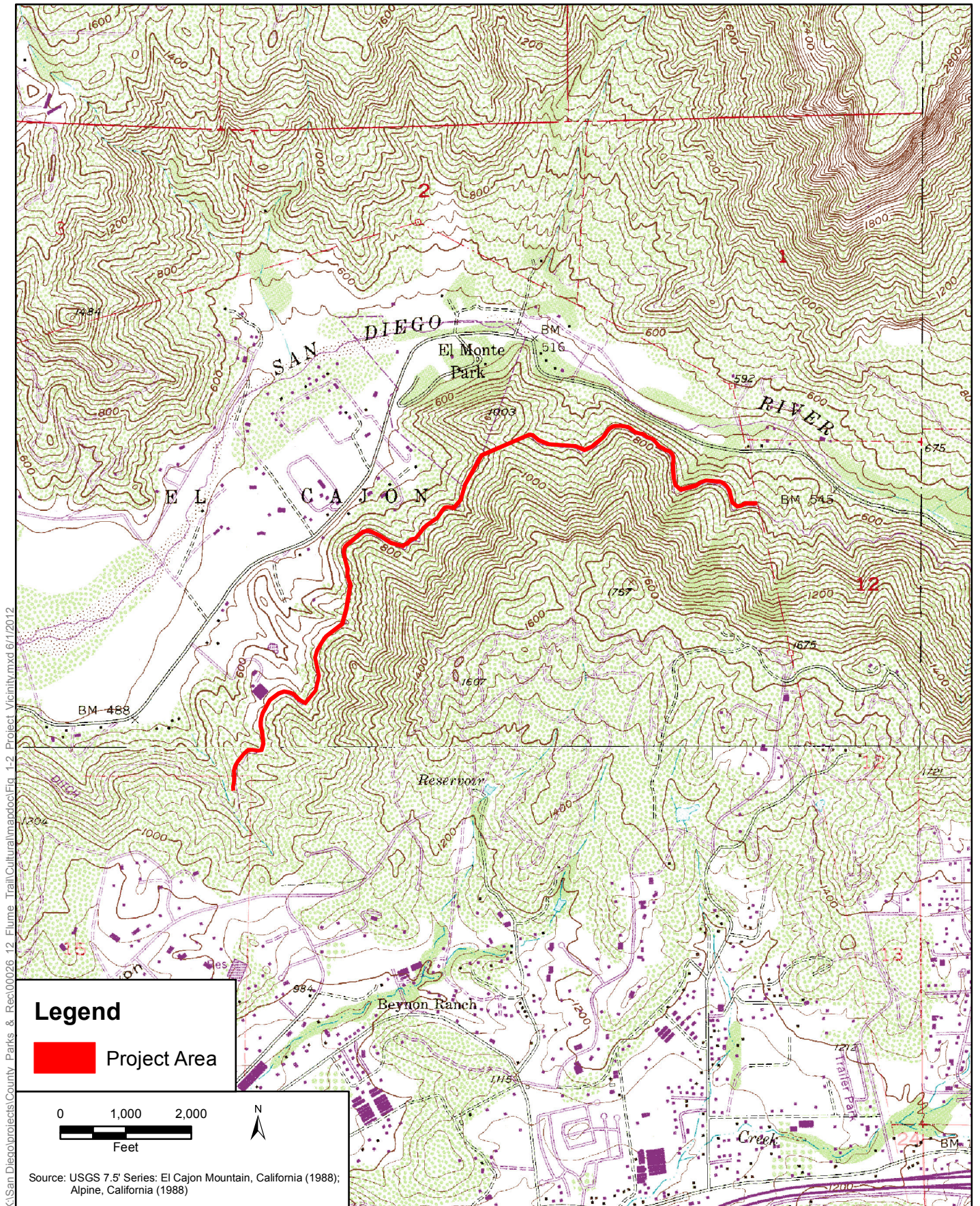


Figure 1-1
Regional Location
County of San Diego DPR Flume Trail Project



**Figure 1-&
Project Vicinity**
County of San Diego DPR Flume Trail Project

K:\San Diego\projects\County Parks & Rec\00026 12 Flume Trail\Cultural\mapdoc\Fig. 1-3 ProjectArea Aerial.mxd 6/1/2012



Figure 1-3
Project Area - Aerial View
County of San Diego DPR Flume Trail Project

1.2. Existing Conditions

1.2.1. Environmental Setting

Natural Setting

The project area is characterized by steep hills with variable small drainages, above the San Diego River floodplain. Specifically, the project area is located within El Monte County Park on a hill benchcut approximately 300 meters (m) from the left bank of the San Diego River, at elevations ranging from 230 to 260m above mean sea level (amsl). Approximately five kilometers north-northeast of the project area is the 1,120-meter tall El Capitan Mountain. The El Capitan Reservoir lies approximately two kilometers from the east edge of the project area, and Lake Jennings is approximately two kilometers west of the project area's west edge. The City of Lakeside is situated approximately five kilometers west of the project area's west edge. Figures 1-1, 1-2, and 1-3 illustrate the project area location.

The project area lies within the Peninsular Ranges geomorphic province of California. Northwest-trending faults and structural blocks, with intervening valleys, characterize this physiographic region. Regional geologic maps for the area indicate that materials underlying the project area are primarily Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite. Just north of the project area, the San Diego River basin/floodplain consists of Quaternary alluvium (California Geological Survey 2010). Soils within the project area consist exclusively of Cienega-Fallbrook rocky sandy loams. These soils are composed of between 25 and 60 centimeters (cm) of sandy loams and sandy clay loams, underlain by approximately ten centimeters of weathered bedrock (USDA 2012).

The vegetative profile of the project area consists of southern mixed chaparral (on north-facing slopes), Diegan coastal sage scrub (on south-facing slopes), and coast live oak woodland (along drainages) habitats (County of San Diego 1984). The southern mixed chaparral is a dense shrub brushland occurring on steep slopes and ridges with well-drained soils below 1,520 m amsl. Dominant species of this community include scrub oak (*Quercus berberidifolia*), blue oak (*Quercus douglasii*), coastal sagebrush (*Artemisia californica*), ceanothus (*Ceanothus* spp.), and manzanita (*Arctostaphylos* spp.), chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), mountain mahogany (*Cercocarpus montanus*), California yerba santa (*Eriodictyon californicum*), and Pacific poison oak (*Toxicodendron diversilobum*). Principal species of the Diegan coastal sage scrub include coastal sagebrush, Eastern Mojave buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Defining flora of the coast live oak woodland include California live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), toyon, Pacific poison oak, and elderberry (*Sambucus Mexicana*). (Oberbauer et al. 2008).

Principal faunal species found within the project area include mule deer (*Odocoileus hemionus*), desert cottontail (*Sylvilagus audubonii*), California quail (*Callipepla californica*), California thrasher (*Toxostoma redivivum*), California towhee (*Melospiza crissalis*), western fence lizard (*Sceloporus occidentalis*), southern Pacific rattlesnake (*Crotalus oreganus helleri*), Pacific gopher snake (*Pituophis catenifer catenifer*), and various insects. Prehistorically, animal life in and around the project area likely included large to medium mammals, such as grizzly bear (*Ursus horribilis*) and black bear (*Ursus americanus*), mountain lion (*Felis concolor*), bobcat

(*Lynx rufus*), mule deer, coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), badger (*Taxidea taxus*), ringtail (*Bassariscus asutus*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). Numerous species of smaller mammals were also present, including jack rabbit (*Lepus californicus*), brush rabbit (*Sylvilagus bachmanz*), cottontail rabbit, ground squirrel (*Spermophilus beecheyi*), pocket gopher (*Thomomys bollae*), and several species of mice and rats (Burt and Grossenheider 1976). Other animals included numerous predatory bird species, such as red-tailed hawks (*Buteo jamaicensis*) and golden eagles (*Aquila chrysaetos*), as well as lizards, snakes, and pond turtles (*Clemmys marmorata*) (Peterson 1961; Stebbins 1966).

Cultural Setting

Prehistoric Period

The following culture history outlines and briefly describes the known prehistoric cultural traditions. The approximately 10,000 years of documented prehistory of the San Diego region has often been divided into three periods: Early Period (San Dieguito tradition/complex), Archaic Period (Milling Stone Horizon, Encinitas tradition, La Jolla and Pauma complexes), and Late Prehistoric Period (Cuyamaca and San Luis Rey complexes).

Early Period Complexes

The Early Period encompasses the earliest documented human habitation in the region. The “San Dieguito complex” is the earliest reliably dated occupation of the area. The assemblage of artifacts associated with the San Dieguito complex has been studied and elaborated upon extensively (Rogers 1939, 1945, 1966; Warren and True (1961), Warren (1967) and Moriarty (1969, 1987). The complex correlates with Wallace’s (1955) “Early Man Horizon,” and Warren subsequently defined a broader San Dieguito tradition (1968). The earliest component of the Harris Site (CA-SDI-149/316/4935B) is located along the San Dieguito River and is characteristic of the San Dieguito complex (Warren 1966, 1967; Warren and True 1961). Artifacts from the lower levels of the site include leaf-shaped knives, ovoid bifaces, flake tools, choppers, core and pebble hammerstones; several types of scrapers, crescents, and short-bladed shouldered points (Warren and True 1961; Warren 1966). Little evidence for the San Dieguito Complex/Early Man Horizon has been discovered north of San Diego County.

Some researchers interpret the San Dieguito complex as having a primarily, but not exclusively, hunting subsistence orientation (Warren 1967, 1968, 1987; Warren et al. 1998). Others see a more diversified San Dieguito subsistence system as possibly ancestral to, or as a developmental stage for, the subsequent, predominantly gathering oriented complex denoted as the “La Jolla/Pauma complex” (cf. Bull 1983; Ezell 1987; Gallegos 1985, 1987, 1991; Koerper et al. 1991).

Archaic Period Complexes

In the southern coastal region of California, the Archaic Period dates from circa 8600 years before present (BP) to circa 1300 BP (Warren et al. 1998). During the Archaic Period, the La Jolla/Pauma complexes have been identified from the content of archaeological site assemblages dating to this period. These assemblages occur at a range of coastal and inland sites, and appear to indicate that a relatively stable and sedentary hunting and gathering complex, possibly

associated with one people, was present in the coastal and immediately inland areas of San Diego County for more than 7,000 years. La Jolla/Pauma complex sites are considered to be part of Warren's (1968) "Encinitas tradition" and Wallace's (1955) "Milling Stone Horizon." The inland or "Pauma complex" aspect of this culture lacks shellfish remains, but is otherwise similar to the La Jolla complex and may, therefore, simply represent a non-coastal expression of the La Jolla complex (True 1958, 1980; True and Beemer 1982). The content of these site assemblages is characterized by manos and metates, shell middens, terrestrial and marine mammal remains, burials, rock features, cobble-based tools at coastal sites and increased hunting equipment and quarry-based tools at inland sites. Artifact assemblages can also include bone tools, doughnut stones, discoids, stone balls, plummets, biface points/knives, Elko-eared dart points, and beads made of stone, bone, and shell. Beginning approximately 5500 BP, and continuing during the latter half of the Archaic Period, evidence of hunting and the gathering and processing of acorns gradually increases through time. The evidence in the archaeological record consists of artifacts such as dart points and the mortar and pestle, which are essentially absent during the early Archaic Period. The initial and subsequent increasing use of these technologies during the middle and late Archaic constitutes a major transition in how the prehistoric populations interacted with their environment in the southern coastal region. The period of this shift, from ca. 4000 to 1300 B.P., has been designated as the Final Archaic Period (Warren et al. 1998).

Late Prehistoric Period Complexes

In the San Diego area, the Late Prehistoric Period has been described as a time characterized by an increased number of sites, and "many technological innovations, and new patterns in material culture and belief systems" (McDonald and Eighmey 1998:III-1). This description, in fact, aptly describes the period for the entire San Diego County area. Changes in tool and ornament types, burial practices, and site location choices, from those documented for the earlier periods, are well documented in the archaeological record and are described below.

As with the earlier periods, archaeologists have defined distinctive complexes for the Late Prehistoric Period prehistoric cultures of the area. Two complexes have been defined for the protohistoric occupants of the area. One, designated as "San Luis Rey," is identified in the southern Orange, western Riverside, and northern San Diego Counties area; the other, "Cuyamaca," is identified in southern San Diego County (Meighan 1954; True 1966, 1970; True et al. 1974). The San Luis Rey complex is believed to be the progenitor of the Shoshonean-speaking peoples (Luiseño/Juaneño culture) living in the area at the time of historic contact in northern San Diego County (referred to as San Luis Rey of Shoshonean origin) (cf. Koerper 1979). Those of southern San Diego County (Cuyamaca, Yuman), are believed to be the ancestors of the Hokan-speaking Diegueño or Kumeyaay (Ipai/Tipai) occupying southern San Diego County at contact. The demarcation line between the San Luis Rey complex and the Cuyamaca complex is believed to be near the historic separation of the tribal territories of the Luiseño/Juaneño and Diegueño. It is highly unlikely, however, that the boundary remained static over time. During Late Prehistoric times, the Preserve would have been within the area commonly associated with the archaeologically-defined San Luis Rey complex.

The San Luis Rey complex has been separated into two time periods, designated as San Luis Rey I and San Luis Rey II (Meighan 1954). San Luis Rey I sites date from circa A.D. 500 to A.D. 1200 and San Luis Rey II, from circa A.D. 1200 to historic contact, about A.D. 1769.

Archaeologically, San Luis Rey II site assemblages are similar to those of San Luis Rey I sites, but with the distinctive addition of ceramics.

Hearths documented for southern San Diego County sites are often clay-lined, yet this type of hearth is not found in the northern County sites. The Luiseño/Juaneño of southern Orange and northern San Diego Counties appear to have primarily practiced cremation (Kroeber 1925), but may also have occasionally buried the dead by inhumation. The use of special burial urns for cremations, however, was apparently not commonly practiced.

Historic Period

By common convention, prehistory ended and historic cultural activities began within what is now San Diego County between the late 1500s and mid-1770s. These cultural activities provide a record of Spanish, Mexican, and American rule, occupation and land use. An abbreviated history of this area is presented to provide a background on the presence, chronological significance, and historical relationship of cultural resources within the study area.

Spanish Period

The historic period in California began with the early explorations of Juan Cabrillo in 1542. Cabrillo came ashore on what is now Point Loma to claim the land for Spain and gave it the name San Miguel. Sixty years passed before another European, Sebastián Vizcaíno, entered the bay on November 10, 1602 and gave it the name San Diego (Pourade 1960:49, 66). Although both expeditions encountered native inhabitants, there appears to have been little or no interaction. None of the coastal sites occupied during this protohistoric period have yielded European trade items or evidence of depopulation due to epidemic diseases, nor does Kumeyaay oral tradition offer a native perspective on these encounters.

The original Spanish settlement in San Diego began in 1769 on Presidio Hill and consisted of a presidio (fort) and a chapel that also served as Alta California's first mission. In that same year, an expedition headed by Gaspar de Portolá traveled north from the Presidio de San Diego to extend the Spanish Empire from Baja California into Alta California by seeking out locations for a chain of presidios and missions in the area. The Spanish period extended to 1821 and encompassed early exploration and subsequent establishment of the San Diego presidio, as well as the San Diego, San Luis Rey, and San Juan Capistrano missions between 1769 and 1821. From its original outpost on what is now Presidio Hill, Mission San Diego de Alcalá was moved to roughly its current site in Mission Valley in 1774. In November 1774, the mission was attacked by Tipay warriors from south of the San Diego River who razed the mission and killed Father Luis Jayme and two others. The San Diego mission was rebuilt in 1775, and while one of the least successful missions in the chain of California missions, it firmly established Spain's presence in the region. During this period, Spanish colonists introduced horses, cattle, sheep, pigs, corn, wheat, olives and other agricultural goods and implements, as well as new architecture and methods of building construction. (Englehardt 1920:60-64).

Despite such expansion, and amid the growing wealth accumulated by the missions, Spanish colonists maintained an ultimately tenuous grip on the region. While missions such as San Luis Rey flourished economically, threats from within and without increasingly undermined political stability. Indigenous populations declined dramatically due to disease, overwork, and the

missions' campaigns to end native ways of life. Instances of native resistance to Spanish authority multiplied across Alta California. Mariners with allegiances to competing colonial powers and trapper-explorers from the east and north increasingly challenged the authority of officials and priests whose problems were of little interests to officials in Spain, which was embroiled in European conflict and declining as a major power (Pourade 1961:176-177; Rawls and Bean 2003:48-52, 54-56).

Mexican Period

Following Mexico's independence from Spain in 1821, the Mexican period began in San Diego County and lasted until 1848, ending with the conclusion of the Mexican-American War. During this period most Spanish laws and practices continued until shortly before secularization of Mission San Luis Rey, Mission San Juan Capistrano, and Mission San Diego de Alcalá. During the Mexican Period, former Presidio soldiers become civilian residents, the Pueblo of San Diego was established, and transportation routes were expanded. During the 1820s, the region's economic activity centered upon agriculture and livestock-raising for subsistence and localized markets, and hide and tallow production for the international market (Pourade 1961:182-183; Sherman 2001:230).

After years of political instability and several failed efforts to secularize the missions, in 1834 Governor José Figueroa issued a proclamation defining the terms of the secularization process that would be instituted over the following two years. Some large grants of land were made prior to the secularization of mission lands, but those following secularization redistributed the missions' large grazing holdings, making numerous tracts available and ushering in the Rancho Era. Provisions for assuring that Indians would receive mission land proved of little or no practical benefit to the region's Native Americans. Limits on the slaughter of mission cattle were often ignored by priests who sought immediate profit on the hide market. Mission lands were distributed mainly to officials and retired soldiers. Approximately 500 private rancho land grants were made under Mexican rule. Governors Juan Batista Alvarado, Manuel Micheltorena, and Pío Pico made most of these grants after secularization (Rawls and Bean 2003:58-63).

After the missions were secularized, many of the natives were forced to work on Mexican ranchos, although those living further from them maintained their traditional life styles longer. Still, as more and more inland grants of areas occupied by the Kumeyaay were made, the Native American inhabitants were forced to acculturate or move away. Oftentimes, the Kumeyaay would relocate away from the intruders further into the backcountry. In several instances, however, former mission neophytes organized pueblos and attempted to live within Mexican law and society. The most successful of these was the Pueblo of San Pasqual, founded by Kumeyaay who were no longer able to live at the Mission San Diego de Alcalá. This Period, however, saw the continued exploitation of native labor, now on the ranchos whose grazing lands were their former territories and whose products spurred the economy of the time.

American Period

Mexico's defeat in the Mexican-American War in 1848 initiated the American period, when Mexico ceded California to the United States under the Treaty of Guadalupe Hidalgo. Subsequently, land ownership by the Mexicans living in California became a matter of considerable legal wrangling. In principle, the Treaty of Guadalupe Hidalgo protected

Californios' (residents of California prior to its acquisition by the U.S.A.) property. In practice, however, the legal process for vetting land claims that was set into motion by the Land Commission established in 1851, combined with the mounting debts of many rancho owners, allowed American and other newcomers to take possession of nearly all of the rancho lands originally granted to Californios. Much of the land that once constituted rancho holdings became public land, available for settlement by emigrants to California. The discovery of gold in the state, the conclusion of the Civil War, and the subsequent availability of free land through passage of the Homestead Act all resulted in an influx of people to California and the San Diego region after 1848. California's importance to the country as an agricultural area began in the latter half of the nineteenth century and was subsequently supported by the construction of connecting railways for the transportation of people and goods.

Soon after Mexico ceded California, many of the areas traditionally used for hunting and gathering by local native groups were fenced for ranches and farms. Reservations were established in 1875 to offset this encroachment. This arrangement, however, forced many natives to adopt a more sedentary life style based on Anglo economics as an alternative to moving to reservations. As in other parts of the state, local tribes were forced to contend with new laws and policies created by a U.S. government located far away from the local area. Many tribal members endeavored to maintain their associations with the Hispanic community, while attempting to cope with an ever-increasing new Anglo population. During the period from 1850 to 1880, deprivations and tribulations multiplied as adaptation to the new ways of the Anglo settlers proved difficult for the local native population (Carrico 2008).

The completion of a transcontinental railroad connection to San Diego in the mid-1880s inaugurated the first land boom and saw the City of San Diego's population soar to over 35,000 in a few short years. The boom was felt throughout the region in the form of many newly formed towns and communities. Thousands of people came to the County to take advantage of the possibilities of the region. Paramount to the quest to develop the area was water acquisition, and late 19th century San Diego became a major focal point of dam construction in the world (Pryde 1984). The San Diego Flume was one of the major components of these water acquisition activities.

By the end of the 1880s, however, the "boom" had become a "bust" as banks failed, land prices plummeted, and speculation could not be sustained by true and beneficial economic growth. Thousands of people left the region abandoning their significantly devalued properties to the tax assessors. However, not all of them left; many remained to form the foundations of many small pioneering communities across the county. These families practiced dry farming, planted orchards, raised livestock, built schools and post offices, and created a life for themselves in the valleys and mesas of San Diego County (Griffin and Weeks 2004:78; Quastler 2004: 182-183).

San Diego Flume

In the 1880s, the growing demands of the City of San Diego and its environs spurred the quest for a constant source of water. By this time, the early 19th century Mission Dam had fallen into disrepair and was no longer a viable option for water distribution to the City. The County of San Diego experienced a population boom from 1880 to 1890, with an increase from 8,600 to 34,900 inhabitants (Pryde 1984: 67); along with growing numbers of residents came a growing need for water. As a result, six major dams were built in San Diego between 1887 and 1897. The first of

these, Cuyamaca Dam, was located just north of Cuyamaca Peak, in the Cuyamaca Mountains, on Boulder Creek. Owned by the Helix Water District, the dam resulted in the formation of Lake Cuyamaca (Reservoir), with a maximum capacity of 11,595 acre-feet of water (Pryde 1984: 115-119).

The San Diego Flume Company was a private enterprise formed in 1885 with the goal of constructing a flume to deliver water from Lake Cuyamaca to the City's burgeoning population. In 1886, the Company hired Sacramento contractors Carle, Croly & Abernathy to construct a Flume to transfer water from a diverting dam on Boulder Creek, 12 miles downstream from Cuyamaca Dam, to the municipal water system's Eucalyptus Reservoir diverting dam in Grossmont. The capture and subsequent use of this water, facilitated by the soon to be constructed Flume would provide San Diego with a secure water supply for domestic and industrial purposes, and also an abundance of water for use in agricultural and residential development in hitherto inarable land. Some contemporary reports state that access to this water supply increased land values by as much as \$100 per acre (Pacific Rural Press 1888; Scientific American 1890; Cohn 1988). Indeed, the words of the San Diego Flume Company's president, Bryant Howard, on the Flume's inauguration (see Figure 1-1) would reflect this sentiment,

“But one thing we have needed. Our fertile hills and valleys and mesas are sometimes dry and barren. Thirsty earth cried for drink, and her thirst is not always quenched. The harvest has not always come to reward the labor of the farmer. The one thing we lacked is water. For here water is king. And now he comes to us in all his glory. He comes from the mountains, and all the valleys and mesas rejoice at his coming. In his footsteps shall spring herb and flower and fruit and grain. He shall wave his scepter over the land, and beneath it ‘shall oil and wine and milk and honey flow.’” (Scientific American 1890).

Construction of the 35.6-mile Flume began in 1886 and was finished by 1889. Touted at the time to be the world's largest ever flume, this new construction required approximately 9,000,000ft of lumber, traversing 315 trestles and eight tunnels. The largest trestle, Los Cochos, measured 1,774ft in length and 58ft in height, and required approximately 250,000ft of lumber. The largest tunnel, Lankersheim, measured 1,900ft in length, and the Cape Horn Tunnel, located in the project area, was the Flume's second longest at 705ft. The Flume itself was constructed mostly of two-inch thick Mendocino County redwood planks, supplied by San Diego lumber contractors Moore & Smith, due to redwood's water resistant qualities. The original construction of the wooden box flume measured five feet ten inches wide and 16in deep with frames placed at four-foot intervals. The frames consisted of a four by six inch by 12ft sill, two four by four inch by four feet posts, and two-two by four inch by three feet three inch diagonal braces (Figure 1-4 and 1-5). The Flume descended at a uniform grade of 4.75ft per mile, resulting in a water flow rate of approximately four miles per hour. The estimated total cost of the Flume's construction was \$1,000,000 (Figure 1-6 and Figure 1.7). (Pacific Rural Press 1888; Scientific American 1890; Cohn 1988).

Figure 1-4. Dedication of the San Diego Flume, 1889



(San Diego Flume Dedication 1889)

The heavy labor in the Flume construction, such as dynamiting, digging tunnels, moving boulders, and preparing “the terrain for the carpenters and flume-layers”, was supplied by Chinese workers from San Francisco (Adema 1993:81; Walker 2004:12). Much of the lumber used in the construction had to be lifted 700-800ft up steep and rocky slopes using a narrow gauge funicular powered by small engines. The lumber cutting and fitting was performed in San Diego in order to reduce the size of loads transported to the construction site. Lumber, hardware, tools, and other supplies were transported from San Diego using over 100 wagons and 800 horses and mules. This activity alone accounted for the construction of numerous roads. (Pacific Rural Press 1888; Scientific American 1890; Cohn 1988).

Though the majority of the Flume alignment was easily obtained from public or private owners, portions were located within the El Capitan Grande Native American Reservation. In order to acquire land within the Reservation, the Flume Company offered, and paid, a non-negotiable sum of \$100 per mile of Flume alignment to the Reservation’s Native American residents. Along with this payment, the Native Americans were guaranteed all the water they needed (Walker 2004:13). Despite this guarantee, most of the river water on which Kumeyaay reservation farming depended was taken by the Flume, resulting in large crop losses. (Scientific American 1890: 167; Pacific Rural Press 1888; Pico 2000).

Despite the number of recent water capture and transport projects throughout San Diego County, the prolonged drought of 1885 to 1905 eventually took its toll on the area’s water supply. By the end of the drought, Lake Cuyamaca had dried up, thereby forcing the Flume Company to supply the Flume with brackish water pumped in from the San Diego River. The Company developed increasing financial difficulties and sold to Edward Fletcher and James Murray in 1910 who would name the new endeavor the Cuyamaca Water Company. By 1914, several alterations to the Flume had been made. One of these consisted of the addition of planks to the sides,

increasing the Flume depth to four feet and also its daily capacity to eight million gallons. Another major alteration was the lining of the Flume with rubberoid roofing; the Flume was relined with the same material in 1921. Other major changes included the replacement of portions of the wooden Flume with concrete and replacement of the wooden Flume with semi-circular iron pipes over some trestles. (City of San Diego 1925; Strathman 2004:125).

Figure 1-5. Workers during San Diego Flume Construction, Date and Location Unknown



(San Diego Flume ca. 1888a)

Due to its proximity to the San Diego River, the Flume was susceptible to flooding episodes. With a peak discharge of 70,200 cubic feet per second, the great San Diego River flood of 1915-16 damaged a significant amount of the Flume and its trestles, causing estimated damages of approximately \$60,000 (Pryde 1984: 129; USDOI and USGS 1918:29). The Cuyamaca Water Company would encounter legal problems as well. Due to the disappearance of Lake Cuyamaca and the Flume's subsequent dependence on water from the San Diego River, the City of San Diego filed a lawsuit in protest, stating that the City has a right to all of the water from the River. In 1924, the City won the lawsuit and the Flume's life was quickly drawing to an end. In 1925, engineers and City officials reported on the condition of the Flume and stated that, though the tunnels were in good condition, "the general condition of the wooden flume sections with maintenance applied as now being done, warrants assigning ten to fifteen years more life to the structure, barring accidents of a major nature" (Wray 1999). In 1926 the City developed plans for the construction of an underground concrete and steel pipeline along the Flume route (City of San Diego 1926). The same year, after numerous failed attempts to sell his company to the City, Fletcher sold the Cuyamaca Water Company to the La Mesa, Lemon Grove, and Spring Valley Irrigation Districts for \$1.2 million (Walker 2004:22).

Figure 1-6. San Diego Flume Trestle Under Construction, Date and Location Unknown



(San Diego Flume ca. 1888b)

Having been granted all of the water rights to the San Diego River, the City completed construction of the El Capitan Dam in 1935. The Dam is located approximately two kilometers east of the project area and rendered the outdated Flume virtually useless (Walker 2004:23).

Because the Dam was constructed on large portions of the El Capitan Grande Reservation, the United States Congress transferred ownership of the Reservation to the City of San Diego. In 1934, the City relocated the Kumeyaay, then known as Capitan Grande Indians, residents to the nearby Viejas and Barona Reservations (Pico 2000). The poor condition of the Flume, along with the completion of the Dam, in 1935, led to the suspension of all Flume operations in 1936 (Cohn 1988:10). At this time, the earlier-discussed pipeline was already under construction along the Flume alignment (Sholders 2002).

In the United States Corps of Engineers' 1975 archaeological survey of the San Diego River, the Flume route (alignment) was identified as an important historical resource. The report suggests that the route encompassed by the current project area be preserved and even mentions its potential as a "very interesting hiking trail...providing environmental variations with elevation changes, and much lovely scenery," and "an interpretive sign, at least, describing its history could be placed at the entrance to El Capitan Dam." Difficulties in the construction of such a trail were also addressed, stating, "One obvious problem exists, however, since the tunnels have been closed for safety reasons and it would be necessary to construct detour trails to bypass the tunnels." (Cupples 1975: 55). Indeed, more than 35 years ago, this report already foresaw the potential of the Flume cut for public use now moving forward through the DPR's planned undertakings studied in the current report.

Figure 1-7. San Diego Flume Transporting Water, Date and Location Unknown



(San Diego Flume Transporting Water Date Unknown)

Ethnographic Background

The Project is situated within the traditional territory of the people known to the Spaniards as the Diegueño, a term derived from the San Diego Mission Alcalá, with which these people came to be associated. This term was later adopted by anthropologists (Kroeber 1925) and further divided into the southern and northern Diegueño. More recently, Shipek (1982) has initiated use of a Yuman language term “Kumeyaay” for the people formerly designated as the Diegueño. The Kumeyaay are traditionally considered to be a collector/hunting society characterized by central-based nomadism.

The linguistic and language boundaries as seen by Shipek (1982) subsume the Yuman speakers into a single nomenclature, the Kumeyaay, a name applied previously to the mountain Tipai or Southern Diegueño by Lee (1937), while Almstedt (1974:1) noted that ‘Ipai applied to the Northern Diegueño with Tipai and Kumeyaay for the Southern Diegueño. However, Luomala (1978:592) has suggested that while these groups consisted of over 30 patrilineal clans, no singular tribal name was used and she referred to the Yuman-speaking people as ‘Ipai/Tipai...(Carrico 1998:V-3 - V-7)

As with most hunting-gathering societies (Service 1966:33), Kumeyaay social organization was formed in terms of kinship. More specifically, the Kumeyaay possessed a patrilocal type of band

organization with band exogamy (marriage outside of one's band) and virilocal marital residence (the married couple integrates into the male's band). The band is often considered as synonymous with a village or rancheria, which is a political entity. Following White (1963), Almstedt (1980:45) has suggested that the term rancheria be applied to both a social and geographical unit, as well as to the particular population and territory held in common by a native group or band. She also stressed that the territory for a rancheria might comprise a 30 square mile area. Many households would constitute a village or rancheria and several villages were part of a much larger social system usually referred to as a consanguineal kin group (*cimuL*). The *cimuL* is typically an exogamous, multilocal, patrilineal, consanguineal descent unit, often widely dispersed in local lineage. The members of the *cimuL* do not intermarry because of their presumed common ancestry, but they maintain close relations and often share territory and resources (Sahlins 1968:23; Service 1971:105-106; Luomala 1963:287-289).

Other researchers have designated the San Diego River as a natural feature dividing the Kumeyaay with those people living north of it being the 'Iipai (Northern Diegueño), and those south of the River and into Baja California being the Tipai (Southern Diegueño) (Langdon 1975:64-70; Hedges 1975:71-83). With a history stretching back at least 2,000 years, the Kumeyaay at the point of contact were, as described above by Carrico, settled in permanent villages or rancherias with strong alliances. Carrico has indicated the possible locations for a number of these villages in the San Diego County area. (Carrico 1998).

While the Kumeyaay exploited a large variety of terrestrial and marine food sources, emphasis was placed on acorn procurement and processing, as well as the capture of rabbit and deer. Shippek (1989) has strongly suggested that the Kumeyaay, or at least some bands of the Kumeyaay, were practicing proto-agriculture at the time of Spanish contact. While the evidence is problematic, the Kumeyaay were certainly adept land and resource managers with a history of intensive plant husbandry.

The Kumeyaay practiced many forms of spiritualism with the assistance of shamans (kuessay) and *cimuL* leaders. Spiritual leaders were neither elected nor inherited their position, but achieved status because they knew all the songs involved in ceremonies (Shippek 1991) and had an inclination toward the supernatural. Important Kumeyaay ceremonies included male and female puberty rites, the fire ceremony, the whirling dance, the eclipse ceremony, the eagle dance and the cremation ceremony, as well as the yearly mourning ceremony (Spier 1923:311-326). The primary ceremonial direction among the Kumeyaay is east, with rock art and entrances to ceremonial enclosures usually facing this direction (Kroeber 1925:717). The Kumeyaay are the only California tribe known to possess a color-direction system where white represents the east, green-blue the south, black the west, and red the north (Kroeber 1925:717).

1.2.2. Records Search Results

The records search and literature reviews were undertaken to identify previously documented archaeological, historic, and architectural resources within and near the project area. This background information is also useful in developing a context for assessing resource significance.

ICF archaeologist Robin Hoffman, M.A., requested a records and literature search from the South Coastal Information Center (SCIC) at San Diego State University on 09 May 2012. The

SCIC is the branch of the California Historical Resources Information System (CHRIS) which houses information on historical resources in San Diego and Imperial Counties. CHRIS is a repository of information on recorded historical resources, among other historical information, and is maintained by the California Office of Historic Preservation. The objective of the request was to identify archaeological and built-environment resources in or within one mile of the project area. The SCIC records search involved a review of the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historic Resources Inventory (HRI), California Historical Landmarks (CHL), and local historical maps. The results from the records search can be found in Appendix A.

Previous Studies

Twenty eight cultural resources studies are on record at the SCIC as having been conducted for areas inside or within one-mile of the project area (Table 1-1). Seven of these studies occurred within a portion of the project area (see shaded studies on Table 1-1). However, these surveys covered only approximately 15% of the project area; the remainder had not been surveyed prior to the current study. The previous studies conducted within the project area consist of two Environmental Impact Reports (Mooney-Lettieri and Associates, Inc. 1982; Multi Systems Associates 1976, listed in Table 1-1 below), two for the Lakeside Community Plan Area (Lorenz and Associates 1988, 1989, in Table 1-1), two Phase I inventories of surrounding County of San Diego Department of Parks and Recreation parks or portions thereof (Jordan and Eckhardt 2008; Jordan, et al. 2008, in Table 1-1), and one inventory for residential developments south of the project area (Apple and Olmo 1980, in Table 1-1).

Table 1-1. Cultural Resource Studies within a One-mile Radius of the Project Area

| NADB # | Date | Author | Report Title |
|---------|------|--------------------------------------|---|
| 1120089 | 1980 | Apple, Stephen A., and Keith R. Olmo | An Investigation of Archaeological Resources Quail Canyon Estates, Lakeside, California. |
| 1120336 | 1978 | Carrico, Richard | Archaeological Investigations at Lake Jennings Ranch Unit 1, Sites SDI-5552 (LJR-6) and SDI-5553 (LJR-7). |
| 1120546 | 1975 | Cupples, Sue Ann | An Archaeological Survey of the San Diego River Valley. |
| 1121764 | 1976 | Multi Systems Associates, Inc. | Environmental Impact Report Quail Canyon Estates, Lakeside, California. |
| 1122106 | 1988 | Lorenz, Craig R., and Associates | Quail Canyon Specific Plan SP77-01 Phase 3, TM 4627, LOG 76-14-155 Lakeside Community Plan Area County of San Diego, California. |
| 1122160 | 1989 | Lorenz, Craig R., and Associates | Quail Canyon Specific Plan SP77-01 Phase 4, TM 4809 RPL, LOG#88-14-144 Lakeside Community Plan Area County of San Diego California. |
| 1122164 | 1982 | Mooney-Lettieri and Associates | Draft Environmental Impact Report for Gilboa Estates Mobilehome Park Major Use Permit MUP# P81-109 EAD LOG#81-14-122. |
| 1123388 | 1998 | City of San Diego | Draft Mitigated Negative Declaration of the Villas De Derby Downs. |
| 1124140 | 2000 | Case, Robert P. | Phase One Cultural Resources Survey for the 2.5 Mile El Capitan Reservoir Access Road |

| NADB # | Date | Author | Report Title |
|---------|------|--|---|
| | | | Improvements Project (CIP No. 733190), City of San Diego, CA. |
| 1125033 | 1983 | County of San Diego | An Archaeological Assessment of Bureau of Land Management Lakeside Site 1. |
| 1127167 | 1994 | Wade, Sue | Archaeological Mitigation: TPM-20037-RPC. |
| 1128570 | 1977 | Cook, John R., and Christopher Write | Archaeological Survey and Report Lake Jennings Ranch. |
| 1128573 | 1977 | Bull, Charles S. | An Archaeological Survey for Blossom Valley Estates. |
| 1129976 | 1973 | Loughlin, Barbara A. | Environmental Impact Report (Archaeology) for RAM Construction Company, Fallbrook, California. |
| 1130166 | 2006 | DeBarros, Phillip | Cultural Resources Inventory and Assessment for the El Capitan Spillway Debris Removal Project on the San Diego River, City of San Diego Water Department, San Diego County, California. |
| 1130670 | 2006 | Smith, Brian F., and Nora Collins | A Cultural Resource Study of the Oakmont II Project, San Diego County, California. |
| 1130964 | 2006 | Bowden-Renna, Cheryl | El Monte Valley Restoration Project. |
| 1130997 | 2003 | Carrico, Richard L., Theodore G. Cooley, and Laura J. Barrie | Final Archaeological Overview for the Cleveland National Forest California. |
| 1131169 | 2007 | Rosenberg, Seth A., and Brian F. Smith | An Archaeological Site Evaluation for the 15256 Willow Road Project, Lakeside, San Diego County, California, APN 390-040-57. |
| 1131392 | 2007 | Shalom, Diane | Cultural Resources Survey Report for: Coker TPM 21102, LOG No. 07-14-012 – Negative Survey. |
| 1131745 | 2008 | Bowden-Renna, Cheryl, and Rebecca McCorkle Apple | Archaeological Literature Review, Site Visit, and Research Design for CA-SDI-13652 and CA-SDI-17300 and for El Monte Valley Nature Park Preserve, San Diego County, California. |
| 1131829 | 2008 | Jordan, Stacey C., and William T. Eckhardt | Cultural Resources Phase I Survey and Inventory of the Proposed Trail and Equestrian Staging Area, El Monte Regional Park, San Diego County, California. |
| 1131977 | 2008 | SWCA | Final Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project in Imperial, Orange, Riverside, and San Diego Counties, California. |
| 1132006 | 2008 | Jordan, Stacey C., William T. Eckhardt, and Andrea M. Craft | Cultural Resources Phase I Survey and Inventory of County of San Diego El Capitan and Oak Oasis Preserves and El Monte and Louis A. Stelzer Regional Parks, San Diego County, California. |
| 1132106 | 2007 | Whatford, J. Charles | Cultural Resources Narrative for the Witch Fire CA-MVU-010432 San Diego County, California. |
| 1132212 | 2009 | Gardner, Jill | Cultural Resources Survey for the SDG&E QC P272424 and P176656 Pole Replacement Project, Alpine, San Diego County, California. |
| 1132303 | 2006 | Cooley, Theodore G. | Cultural Resources Report of a Phase I Inventory, Survey and Testing Program at Site CA-SDI-17,968 for a Proposed Development Located in Blossom Valley San Diego County, California. |

| NADB # | Date | Author | Report Title |
|---------|------|---|---|
| 1132711 | 2010 | Garcia-Herbst, Arleen, and David Iversen, Don Laylander, and Brian Williams | Final Inventory Report of the Cultural Resources within the Approved San Diego Gas & Electric Sunrise Powerlink Final Environmentally Superior Southern Route, San Diego and Imperial Counties, California. |

*Shaded reports encompassed portions of the current project area

Previously Recorded Sites in the Study Area

Forty four (one SCIC return, CA-SDI-11269H, is incorrectly plotted) previously recorded historical resources are present inside or within a one-mile radius of the project area (Table 1-2). Of these, only two (CA-SDI-8397 and CA-SDI-11296H) are located within portions of the project area. Prehistoric site CA-SDI-8397 consists of four loci of bedrock milling features, all slicks; only one locus contained multiple slicks. Though the extreme northern portion of the site falls within the current project area, none of the features are located in this area and this portion of the site appears to represent a buffer from the features. CA-SDI-11296H is the historic-period San Diego Flume cutbank and associated Cape Horn Tunnel/Tunnel No. 4. The site was relocated during the current study and will be discussed in greater detail below.

1.2.3. Other Historical Research

Information on land ownership and use was obtained from a variety of sources. ICF historians researched land patent information from the Bureau of Land Management's (BLM) Government Land Office (GLO) records website. Two digital historical aerial imagery sources, historicaerials.com and Google Earth, were used to analyze the historical use of the project area and the presence of any structures or other features which may not be visible during a pedestrian survey. Researchers also reviewed historical maps, including USGS topographic maps, for features historically important enough to appear thereon. ICF reviewed current and historical USGS maps during this analysis. Reference books and historical newspapers available online and in ICF's San Diego library provided information on the El Cajon Land Grant, San Diego Flume Company, El Capitan Reservoir, and nearby County Parks. Finally, a large amount of information on the Flume and local County Parks was taken from historical research conducted by ICF for two previous cultural resources studies on the area's County Parks (Jordan et al. 2008; Jordan and Eckhardt 2008). Much of the information from these previous studies was obtained from the Lakeside Historical Society and its Co-President (Brack 2008) and the County of San Diego Department of Parks and Recreation.

Table 1-2. Cultural Resources Recorded within a One-mile Radius of the Preserve

| Primary (P-37-) | Trinomial (CA-SDI-) | Type/Description | Dimensions | Site Form Reference |
|-----------------|---------------------|---|------------|---------------------------|
| | 4517 | Prehistoric-low density: BMF, flaked stone, ground stone, ceramics | 115 x 95m | |
| | 4678 | Prehistoric-high density: BMF, flaked stone, ground stone, ceramics | 265 x 90m | |
| | 8251 | Multicomponent-high density: BMF, flaked stone, ground stone, ceramics, beads, historic mining structures and | 410 x 350m | Garcia-Herbst et al. 2009 |

| Primary (P-37-) | Trinomial (CA-SDI-) | Type/Description | Dimensions | Site Form Reference |
|-----------------|---------------------|---|--------------|---------------------------------------|
| | | features | | |
| | 8397 | Prehistoric-low density: BMF | 315 x 175m | |
| | 8398 | Prehistoric-medium density: BMF, flaked stone | 30 x 10m | |
| | 8402 | Prehistoric-low density: BMF, flaked stone | 105 x 70m | |
| | 8403 | Prehistoric-low density: flaked stone | 100 x 85m | |
| | 8915 | Prehistoric-low density: BMF, rock shelter (?) | 70 x 40m | |
| | 11295 | Prehistoric-low density: BMF | 1.5 x 1m | |
| | 11296H | Historic: San Diego Flume cut bank and Tunnel No. 4 | 3280ft | Jordan and Eckhardt 2008 |
| | 13605 | Multicomponent-low density (prehistoric), high density (historic): BMF, flaked stone, ground stone, El Monte Park structures and features | 630 x 265m | Jordan et al. 2008 |
| | 13606 | Prehistoric-low density: BMF | 150 x 30m | Jordan and Eckhardt 2008 |
| | 13607 | Prehistoric-low density: flaked stone, ground stone, ceramics, FAR | 200 x 175m | |
| | 13608 | Multicomponent-low density: ground stone, FAR, structure, historic glass | 305 x 50m | |
| | 13609 | Prehistoric-(isolate): BMF | 2 x 2m | |
| | 13610 | Prehistoric-moderate density: BMF, ground stone, ceramics | 60 x 40m | |
| | 13611 | Multicomponent-low density: BMF, ground stone, historic structural debris | 75 x 40m | Garcia-Herbst et al. 2009 |
| | 13612 | Prehistoric-(isolate): BMF | 15 x 10m | Garcia-Herbst et al. 2009 |
| | 13613 | Prehistoric-low density: BMF | 10 x 10m | |
| | 13618 | Prehistoric-(isolate): BMF | 3 x 2m | |
| | 13619 | Prehistoric-low density: BMF | 5 x 3m | Case 2000 |
| | 13620 | Prehistoric-low density: BMF | 50 x 50m | |
| | 13621 | Prehistoric-low density: BMF | 5 x 5m | |
| 029708 | 18999 | Historic-high density: quarry complex | 1000 x 675ft | SWCA 2008; *Garcia-Herbst et al. 2009 |
| 030137 | 19202 | Prehistoric-low density: BMF | 34 x 15m | Jordan et al. 2008 |
| 030138 | 19203 | Prehistoric-moderate density: BMF | 70 x 50m | Jordan et al. 2008 |
| 030139 | 19204 | Prehistoric-low density: BMF | 25 x 20m | Jordan et al. 2008 |
| 030140 | 19205 | Prehistoric-low density: BMF | 65 x 25m | Jordan et al. 2008 |
| 030141 | 19206 | Prehistoric-(isolate): BMF | 15 x 15m | Jordan et al. 2008 |
| 030142 | 19207 | Prehistoric-low density: BMF | 55 x 20m | Jordan et al. 2008 |
| 030216 | 19248 | Prehistoric-(isolate): BMF | 8 x 8m | Noah and Gallegos 2008 |
| 030217 | 19249 | Prehistoric-(isolate): BMF | 8 x 8m | Noah and Gallegos 2008 |
| 031187 | 19761 | Prehistoric-moderate density: BMF | 30 x 10m | Garcia-Herbst et al. 2009 |
| 031188 | 19762 | Prehistoric-low density: ground stone, shell | 14 x 11m | Garcia-Herbst et al. 2009 |

| Primary (P-37-) | Trinomial (CA-SDI-) | Type/Description | Dimensions | Site Form Reference |
|--------------------|------------------------|---|------------|--------------------------|
| 015481 | | Prehistoric-(isolate): flaked stone, ground stone | N/A | |
| 015482 | | Prehistoric-(isolate): ground stone | N/A | |
| 029735 | | Prehistoric-(isolate): ground stone | N/A | |
| 031875 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |
| 031876 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |
| 031877 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |
| 031878 | | Historic: agricultural structure | | Ní Ghabhláin et al. 2010 |
| 031879 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |
| 031880 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |
| 031881 | | Historic: residential structure | | Ní Ghabhláin et al. 2010 |

Shaded reports encompassed portions of the current project area

The following references were not present in the SCIC records search returns:

Garcia-Herbst, Arleen, David Iversen, Brian Williams, and Don Laylander. 2009. *Class III Inventory of the Cultural Resources along the Approved San Diego Gas & Electric Sunrise Powerlink Final Environmentally Superior Southern Route, San Diego and Imperial Counties, California.*

Noah, Anna C., and Dennis R. Gallegos. 2008. *Class III Archaeological Inventory for the SDG&E Sunrise Powerlink Project, San Diego and Imperial Counties, California.*

Ní Ghabhláin, Sinéad, Michael P. Pumphrey, Sarah Stringer-Bowsher, and Shelby Gunderman. 2010. *Assessment of Indirect Visual Impacts on the Historic Built Environment Properties within the Area of Potential Effect of the Approved San Diego Gas & Electric Sunrise Powerlink Final Environmentally Superior Southern Route, San Diego and Imperial Counties, California.*

1.3. Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA and the San Diego County Local Register provide the guidance for making such a determination. The following section(s) details the criteria that a resource must meet in order to be determined important.

1.3.1. California Environmental Quality Act (CEQA)

According to CEQA (§15064.5a), the term “historical resource” includes the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR. Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resource Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

- (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- (2) The significance of an historical resource is materially impaired when a project:
 - (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- (C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

- (1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
- (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- (3) If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5 (d) & (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

- (d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American heritage Commission as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American heritage Commission. Action implementing such an agreement is exempt from:
 - (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
 - (2) The requirement of CEQA and the Coastal Act.

1.3.2. San Diego County Local Register of Historical Resources (Local Register)

The County requires that resource importance be assessed not only at the State level as required by CEQA, but at the local level as well. If a resource meets any one of the following criteria as outlined in the Local Register, it will be considered an important resource.

- (1) Is associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;
- (2) Is associated with the lives of persons important to the history of San Diego County or its communities;
- (3) Embodies the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

2.1. County Guidelines

Pursuant to the County of San Diego Guidelines for Determining Significance – Cultural Resources (County of San Diego 2007), any of the following will be considered a significant impact to cultural resources:

- (1) The project, as designed, causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.
- (2) The project, as designed, causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains the potential to contain information important to history or prehistory.
- (3) The project, as designed, disturbs any human remains, including those interred outside of formal cemeteries.

3.0 RESEARCH DESIGN

3.1. Prominent Studies in the Vicinity of the Project Area

Numerous cultural resource studies associated with state and local regulatory compliance with the California Environmental Quality Act (CEQA), or for review of federal undertakings complying with National Environmental Policy Act (NEPA) and National Historical Preservation Act (NHPA), have been conducted on or in the vicinity of the project area. Those studies documented with SCIC as occurring been conducted within a one-mile radius of the project area are shown in Table 1-1. Two of these studies were early archaeological surveys of the San Diego River Basin, conducted for the U.S. Army Corps of Engineers through San Diego State University and Dr. Paul H Ezell (Loughlin 1973; Cupples 1975). The document from the earlier survey is not available, but the later report reveals that these surveys identified and recorded a wide number of prehistoric sites in the vicinity of El Monte Regional Park, including bedrock milling features, temporary camps, and seasonal encampments on both sides of the river channel. This study also includes historic contexts for the San Diego Flume and nearby cities (e.g., Lakeside and Santee).

There are other important, more geographically-focused, studies that have been conducted within a wider region surrounding the project area that also merit consideration in the present study. Although all resources found during the current study date to the historic era, a brief prehistoric context is included in the unlikely event that prehistoric resources are identified during construction of the Project.

3.1.1. Prominent Prehistoric Archaeology Studies

One important prehistoric study in the project vicinity was a large excavation conducted between 1977 and 1979 at site CA-SDI-5669 in the eastern area of the City of Santee, approximately six miles to the west-southwest of the project area (Berryman 1981). This site, located along the north side of the San Diego River just west of its intersection with Los Coches Creek, is likely to have represented a Late Prehistoric village location based on the volume and variety of artifacts and features encountered in the investigation. Radiocarbon dating indicated two periods of occupation, one from circa A.D. 760 to A.D. 1030 and the other from circa A.D. 1735 to A.D. 1890 (Berryman 1981:19). San Vicente Creek valley, located four miles northwest of the project area, was surveyed and tested in 1942 (McCown 1945). This study took place prior to the completion of construction of San Vicente Dam and the subsequent flooding of the valley circa 1943. The study included the archaeological survey and excavation of a prehistoric village or campsite along the creek bed. Discoveries included incised pottery, a rock shelter, and human burials. Results of the data recovery program conducted at seven of the San Vicente Reservoir prehistoric sites indicated principal, but not exclusive, occupation of the sites during the Late Prehistoric and Ethnohistoric periods (Willey and Dolan 2004).

3.1.2. Prominent Historical Archaeology Studies

The vast majority of historical archaeology studies in San Diego County focus on Old Town San Diego, the missions, or downtown modern San Diego. A wide range of literature exists on the history, including the water infrastructure, of the County and the general project vicinity. However, few archaeological studies have focused on historic-period water resources in the San

Diego area or on historic-period resources of the project area. Pham (2011) conducted an archaeological study of San Diego County historical water use, though the study focused on cisterns and wells mostly in the City of San Diego. Indeed, there is a need for further archaeological studies for historic-period resources in the area outside of the City of San Diego proper, and the more prominent historic locales in the County.

3.2. Research Context

3.2.1. Prehistoric Research Context

Because the Project is specifically associated with an historic-period resource (San Diego Flume), an abbreviated prehistoric research context is presented below. Patterns of prehistoric subsistence and settlement have been a primary topic area for many researchers in San Diego County (e.g., Christenson 1990; Laylander 2006; Schroth et al. 1996; Gallegos et al. 1998; Carrico and Cooley 2005; Norwood 1980; Glenn 1999). Further, these studies indicate the use of similar research topics throughout the County. Typically, topic realms provide the basis for site interpretation, where broader research realms are translated into specific research questions that can be addressed with archaeological data. Typical examples include those proposed by researchers such as Norwood (1980) and Glenn (1999) that can help archaeologists understand and explain the nature of past life ways. Oftentimes, the foremost questions are ones of chronology. For example, do the sites contain elements that can be used to ascertain their age, either by radiometric dating or by the presence of time sensitive artifacts? Other questions relate to past life ways. For example, how do specific sites fit, or not fit, into the prehistoric settlement pattern as it is currently understood? How are they located relative to their environmental setting, and changes in environmental conditions through time? Do any sites represent more substantial habitation locations such as villages or major campsites, rather than specialized, short-term resource procurement locales? Larger habitation sites often contain the greatest variety of associated cultural materials, and so receive greater focus. Can sites with ceremonial or ritual content be identified? Are special-use sites present such as quarries, lithic workshops, milling stations, and seed storage areas? Do any sites contain exotic artifacts or materials that may indicate trade with other areas?

3.2.2. Historical Research Context

Research on the history of San Diego County typically occurs within a framework involving both chronological and thematic elements. Most chronologies follow a periodization scheme, typically including the following elements (in chronological order): 1) Ethnographic Period (before 1769); 2) Spanish Period (1769-1821); 3) Mexican Period (1821-1848); and, 4) American Period (1848-present). The most recent of these, the American Period, is often divided into several subperiods related to specific trends in economy, politics, industrialization, demography, and other factors. These trends usually provide the contexts within which resources are evaluated for significance. The construction of the San Diego Flume falls within what is often referred to as the Boom-Bust period (ca. 1885-1888), a time of rapid population growth and economic expansion. The arrival of major railroad lines and increased industrial invention and efficiency were major factors in the growth of the San Diego area during this period.

The San Diego Flume is an example of new engineering technologies and design during this period. In addition to chronological categorization, thematic analyses are often used to better

understand the area's history. Similar to themes commonly used in regional and national historical research, San Diego area topics often include: 1) Industry; 2) Agriculture; 3) Water Supply and Use; 4) Demographic Trends; 5) Transportation; 6) Recreation and Tourism; and, 7) Architecture and Design. Of course, these themes are all interrelated and cannot be completely isolated for study. Due to the focused scale of the current Project, however, this research context will focus on the two most prominent themes associated with the Flume's role in San Diego history: Water Supply and Demographic Trends.

Due to San Diego's arid nature, access to sources of reliable fresh water has been a constant factor in the area's history. The ability to obtain and transport water to the City and surrounding areas was vital to the area's economic and population growth. Improved water systems, such as the Flume, provided steady sources of freshwater to the area and allowed the area to become desirable for industrial, agricultural, and commercial ventures. The technological advances and investments of the late 1800s spawned a need for improved water systems in the San Diego area. As the area's first major water conveyance system, the Flume occupies a notable role in San Diego's late 19th century growth. With increased economic diversity and overall investment came an influx of people to the region. Many of these newcomers came to the region as a result of their association with large construction projects. The Flume was one of these projects and offered a source of income (though labor) to individuals from a wide range of ethnicities and education levels.

Several questions can be asked concerning the Flume's role in the history of San Diego. Was the Flume an adequate response to the area's late 19th century water needs? How did the Flume immediately contribute to an expansion in the area's population? Did the Flume's construction result in any water supply problems? Did construction or operation of the Flume have a marked impact on the area's ethnic or social demographic? Does the Flume's design noticeably reflect technological advances associated with the late 19th century? Insight into most of these questions can only be obtained from historic and modern non-archaeological sources, though archaeological resources associated with the Flume may provide additional information on its design and overall technological context.

4.0 ANALYSIS OF PROJECT EFFECTS

4.1. Methods

4.1.1. Survey Methods

The field survey methods for the Project consisted of either systematic intensive pedestrian survey or reconnaissance survey. Intensive pedestrian survey was the preferred method and was utilized in all areas where feasible. Intensive pedestrian survey methods consisted of a team of two people walking in 5-meter transects in any areas where slope, vegetation, and/or terrain would allow transects to be maintained. Team members checked all bedrock outcrops and areas cleared of vegetation or disturbed by rodents along and between the transect lines. The proposed Trail alignment is located along a previously recorded portion of the Flume benchcut. This site, CA-SDI-11296H, also includes the Cape Horn Tunnel/Tunnel No. 4, a component of the Flume; the Tunnel is located beneath a portion of the proposed Trail. During the survey, remains of the Flume or associated activities were considered to be features or artifacts of this same site. However, each feature or artifact encountered during the survey was given an individual field number for descriptive purposes.

Intensive survey methods utilizing transects were not suitable for portions of the project area. Instead, reconnaissance survey methods were used in those areas where transect coverage was precluded by the presence of dense vegetation, large boulder outcrops or steep, rugged terrain. Consequently, such areas could not be covered consistently using a 5-meter transect methodology. Reconnaissance survey methods consisted of surveying the visible areas where present and/or accessible. Bedrock outcrops within all surveyed areas were examined thoroughly for evidence of prehistoric milling activity or other discernible human modification, and edges of the Flume benchcut were examined in detail for evidence of associated features or artifacts. Within the reconnaissance survey areas, if bedrock outcrops were identified that had a potential to contain bedrock milling features, rock shelters, or rock art, specific attempts were made to reach these outcrops in order to make a determination if such resources were present.

Trimble Geo XH sub-meter accuracy Global Positioning System (GPS) units were used to track the survey transects and coverage, as well as to record cultural resources identified within the project area. Notes on resource details were collected to meet or exceed site recordation guidelines based on the California Office of Historic Preservation's California Archaeological Inventory Handbook for Completing an Archaeological Site Record and SCIC recommendations. Field numbers for identified resources followed the following format: "ICF-FT-[number]".

On 15 and 16 May 2012, Hoffman and Contreras conducted the survey along the entire length, approximately 2.5 miles, of the project area. All portions of the Flume benchcut were surveyed by intensive pedestrian survey, while approximately 35% of the remaining 40-foot wide County-owned land and 50% of the 20-foot wide buffer was surveyed by reconnaissance survey. Ground visibility in the benchcut varied from 5-100%, averaging 40%, yet portions of the project area with dense vegetation and steep slopes presented poor ground visibility conditions, ranging from 0-50%, averaging 25%. Figures 4-1 and 4-2 provide general photographic overviews of the survey conditions.

Michael Bever, PhD, RPA, of ICF served as principal investigator for the study and co-author for this report. Robin Hoffman, MA, served as field director, provided graphics and GIS support, and co-authored the report. Much of the historical information relating to the Flume was derived from two previous ICF cultural resources studies (Jordan et al. 2008; Jordan and Eckhardt 2008) covering portions of the project area or nearby areas. Ms. Alisa Contreras, of Red Tail Monitoring & Research, Inc. (Red Tail), served as Native American monitor during the field investigation.

4.1.2. Native American Participation and Consultation

On 11 May 2012, ICF Archaeologist Robin Hoffman, MA, sent a letter to the Native American Heritage Commission (NAHC) requesting a review of the Sacred Lands Files. Hoffman received a response letter, via fax, from Mr. Dave Singleton of the NAHC, on 14 May 2012. The search of the Sacred Lands File by the NAHC indicated that no sacred Native American resources were identified in the project area. The NAHC response also included a list of local Native American contacts. On 14 May 2012, letters requesting further consultation and participation in the cultural resources study were sent to the 21 listed Native American contacts. Representing the Kumeyaay, Red Tail Monitoring & Research, Inc. was retained contractually to provide Native American monitoring services for the field survey.

In an email dated 19 June 2012, Viejas Band of Kumeyaay Indian Environmental Coordinator Julie Hagen requested that a Viejas monitor be present during all ground-disturbing activities associated with the Project. Detailed information on Native American Consultation can be found in Appendix B.

Figure 4-1. Overview of Project Area, View W, from Project Area E Terminus



Figure 4-2. Dense Vegetation within Project Area, View E, from ~300m NE of ICF-FT-03



4.2. Results

As a result of the survey fifteen historical resources, all historic-period, were identified within the project area (Confidential Figures C-1 to C-5 in CONFIDENTIAL Appendix C). One of these, CA-SDI-11296H (the Flume itself) was previously recorded. The remaining resources were discovered during the field survey. Ten of these resources (ICF-FT-02, 04-07, 12-16) are stacked cobble stabilization walls located on the downslope side of the Flume benchcut; one resource (ICF-FT-08) consists of a pair of redwood planks; one (ICF-FT-03) is a trestle footing cut into bedrock; and two (ICF-10 and 11) are entrances to a tunnel (the same tunnel). In addition, the portion of the flume benchcut within the project area was assigned a temporary number (ICF-FT-17) for purposes of recordation.

All fourteen newly identified resources are associated with the Flume (CA-SDI-11296H) and will all be included in a site record update as individual contributing features to the site (CONFIDENTIAL Appendix D). No prehistoric resources, isolates, resources of unknown age, multi-component sites, or other objects, infrastructure, or locations of historic activities were identified. Table 4-1 summarizes the historical resources identified during the field survey, and each is discussed below.

Table 4-1. Historical Resources Identified During the Field Survey

| Field# (ICF-FT-) | Description | Max. Dimensions (ML x MW x MH) | Comments |
|---------------------|--|--|---|
| 02 | Historic-period cobble wall | 35 x 3 x 4 ft | Element of CA-SDI-11296H: cutbank support |
| 03 | Historic-period footings cut into bedrock | 12 x 12 in (x2) | Element of CA-SDI-11296H: trestle support |
| 04 | Historic-period cobble wall | 60 x 3 x 8 ft | Element of CA-SDI-11296H: cutbank support |
| 05 | Historic-period cobble wall | 40 x 3 x 3 ft | Element of CA-SDI-11296H: cutbank support |
| 06 | Historic-period cobble wall | 120 x 3 x 3 ft | Element of CA-SDI-11296H: cutbank support |
| 07 | Historic-period cobble wall | 120 x 3 x 8 ft | Element of CA-SDI-11296H: cutbank support |
| 08 | Historic-period redwood planks | 48 x 8 x 2 in (largest of two) | Element of CA-SDI-11296H: trestle or Flume material |
| 10 | Historic-period tunnel/tunnel entrance | 705 x 6 ft (tunnel); 11 x 7 ft (facade MW x MH) | Element of CA-SDI-11296H: tunnel; combined with ICF-FT-11 into one feature |
| 11 | Historic-period tunnel/tunnel entrance | 705 x 6 ft (tunnel); 11 x 7 ft (facade MW x MH) | Element of CA-SDI-11296H: tunnel; previously recorded; combined with ICF-FT-10 into one feature |
| 12 | Historic-period cobble wall | 20 x 2 x 2 ft | Element of CA-SDI-11296H: cutbank support |
| 13 | Historic-period cobble wall | 16 x 2 x 2 ft | Element of CA-SDI-11296H: cutbank support |
| 14 | Historic-period cobble wall | 140 x 2 x 4 ft | Element of CA-SDI-11296H: cutbank support |
| 15 | Historic-period cobble wall | 100 x 3 x 5 ft | Element of CA-SDI-11296H: cutbank support |
| 16 | Historic-period cobble wall | 55 x 2 x 4 ft | Element of CA-SDI-11296H: cutbank support |
| 17 | Historic-period Flume benchcut (CA-SDI-11296H) | 2.53 mi x 10-20 ft (ML x MW) | Element of CA-SDI-11296H: Flume benchcut; portion previously recorded |

ML = maximum length

MW = maximum width

MH = maximum height

ICF-FT-02. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the central portion of the project area (Figure 4-3). The wall is composed of stacked angular (most likely local) granitic cobbles ranging in size from 4 to 30 inches (in) maximum length (ML), averaging approximately 10 in ML. Oriented NE-SW and spanning a very small drainage/depression, the wall is approximately 35 ft long, 3 ft wide (at the top), and has a maximum height of 4 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-3. ICF-FT-02, View NE



ICF-FT-03. This historic-period resource consists of two square parallel cuts into an approximately 3 m-wide, interred, boulder (Figure 4-4). Oriented at 60°-240°/150°-330°, the resource is located on the northeast-facing slope of a steep southeast-northwest trending drainage intersecting the Flume benchcut. The cuts measure 12 in square, and have maximum depths of: northeast corners 3 in, northwest 2.5 ins, southeast and southwest corners .5 in. The two cuts are aligned with one another along a northeast edge axis and are spaced 24 in apart (between northwest edge of east cut and southeast edge of west cut). The resource appears to represent a pair of footings for a former trestle associated with the Flume. The trestle would have spanned the steep drainage to the north/northeast of the cuts, and the resource is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-4. ICF-FT-03, Overhead Facing NE



ICF-FT-04. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the central portion of the project area (Figure 4-5 and 4-6). The wall is composed of stacked angular (most likely local) granitic cobbles ranging in size from 12-20 in ML, averaging approximately 16 in ML. Oriented north-northeast/south-southwest and spanning a wide, shallow drainage/depression, the wall is approximately 60 ft long, 8 ft wide (at the top), and has a maximum height of 8 ft, located its central portion. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-5. ICF-FT-04, View NNW, from S Terminus



Figure 4-6. ICF-FT-04, View ENE, Central Portion from Downslope



ICF-FT-05. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the central portion of the project area, approximately 60 ft SSE of ICF-FT-04 (Figure 4-7). The wall is composed of stacked angular (most likely local) granitic cobbles ranging in size from 12-20 in ML, averaging approximately 16 in ML. Oriented NNW-SSE and spanning a wide, shallow drainage/depression, the wall is approximately 40 ft long, 3 ft wide (at the top), and has a maximum height of 3 ft, located its central portion. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-7. ICF-FT-05, View NNW, From SE Terminus



ICF-FT-06. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the central portion of the project area, approximately 40 ft south-southeast of ICF-FT-05 (Figure 4-8). The wall is composed of stacked angular (most likely local) granitic cobbles ranging in size from 12-20 ML, averaging approximately 16 in ML. Oriented roughly north-south and spanning a wide, shallow drainage/depression, the wall is approximately 120 ft long, 3 ft wide (at the top), and has a constant height of approximately 3 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-8. ICF-FT-06, View S, From N Terminus



ICF-FT-07. This resource is a long robust historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the central portion of the project area, approximately 100 ft south-southeast of ICF-FT-06 (Figure 4-9). The wall is composed of stacked angular (most likely local) granitic cobbles ranging in size from 12-20 in ML, averaging approximately 16 in ML. Oriented north-northwest/south-southeast and spanning a steep slope, the wall is approximately 120 ft long, 3 ft wide (at the top), and has a variable height of 3 to 8 ft, with the central portion achieving the maximum height of 8 ft. Modern bamboo fencing has been constructed along the extreme south portion of the resource, but appears to have left it undisturbed. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-9. ICF-FT-07, View N, From SSE Terminus



ICF-FT-08. An historic-period feature, ICF-FT-08 consists of two adjacent partially interred redwood planks. The planks are located approximately 3 ft below the Flume benchcut on the north-facing slope of a steep east-west trending drainage (Figure 4-10). Oriented along the long-axis roughly east-west, the planks are situated adjacent and parallel (along long axis) to one another with the east and west ends interred in the slope; the planks span a steep, very shallow and narrow south-north trending depression/drainage. The planks are of different sizes, the larger being the northern-most positioned. The exposed portion of the planks measure: larger-48 x 8 x 2 in (ML x MW x MT), smaller-18 x 4 x 2in (ML x MW x MT). Both planks show evidence of significant burning, most likely a result of historic and modern wildfires. The feature appears to be remnants of the Flume itself, or a trestle supporting the Flume across the drainage to the north of the feature. As such, the resource is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-10. ICF-FT-08, View S, From Downslope



ICF-FT-10/ICF-FT-11. ICF-FT-10 and ICF-FT-11 are the northeast and southwest entrances, respectively, to the Cape Horn Tunnel/Tunnel No. 4 (Figures 4-11, 4-12, and 4-13) and are located in the central portion of the project area. ICF-FT-11 is located underneath the proposed Trail, though can be seen from a position east of the resource, along the Trail alignment. The Tunnel itself, and ICF-FT-11 are situated beneath the proposed Trail alignment designed to traverse the hill under which the Tunnel is located. ICF-FT-10, however, is situated in the location where the proposed Trail will rejoin the Flume benchcut.

ICF-FT-11 was initially recorded by DeGiovine and Craft in 2008, and appears to have remained unaltered since that time except that no poly-vinyl chloride (PVC) pipe was observed during the current survey. ICF-FT-10 has not been previously recorded (DeGiovine and Craft 2008). The Tunnel measures 705 ft from entrance to entrance beneath a hill at a maximum depth of approximately 600 ft at a minimal grade descending east to west. Blasted out of the granitic bedrock, the Tunnel's interior consists of concrete with wooden beams on the sides and ceiling at regular intervals; the floor of the Tunnel was covered in dry sediment at the time of the survey. The Tunnel interior is 6 ft tall with an opening diameter of 6 ft.

Figure 4-11. ICF-FT-10, View W



Aligned northeast-southwest, the Tunnel's two entrances are identical in construction and dimensions, only differing in the presence of marking in the concrete of the northeast entrance (ICF-FT-10) and graffiti on the southwest entrance (ICF-FT-11). Each entrance has an exterior decorative facade constructed of mortared cut local granitic boulders. The facades measure 11 ft wide by 7 ft tall and have both been closed with a 1 in rebar grade. Graffiti which reads, "APR. 53./BOB BEEMAN/JERRY PALMR/ANDY TRYER/NORM TRAVEL" is present on the south interior surface of the tunnel, just inside the grade of ICF-FT-11. A small concrete block

emerging from the base of the north wall of ICF-FT-10, just outside the grade, contains an inscription, “21667 HEN.” The Tunnel entrances are level with the Flume benchcut, which extends in both directions from the Tunnel. Overall, the Tunnel and its entrances are in very good condition.

Constructed between May 1887 and January 1888, the Tunnel is identified on the 1903 Cuyamaca 15-minute series USGS topographic map (USGS 1903) as the “Cape Horn Tunnel”, and the final construction progress report designates it “Tunnel No. 4 Cape Horn” (Figure 4-15) (Tunnel No. 4-Cape Horn Progress Report ca. 1888). It is the fourth tunnel from the head of the flume, at Lake Cuyamaca, and the first (downstream from Lake Cuyamaca) of the four named tunnels as shown on the abovementioned topographic map: Cape Horn, Monte, Los Coches, and Lankesheim (Wray 1999). An engineer’s report on the condition of the flume compiled by the City of San Diego in 1925 discusses the flume tunnels (City of San Diego 1925). A photograph of Tunnel No. 1 from the report shows the same portal design as the Cape Horn Tunnel, but with a much longer approach. Much of the tunnel system had been apparently destroyed by 1967, with *The Daily Californian* reporting on 25 August that the flume tunnels had been barred with iron grills (seen in ICF-FT-10 and ICF-FT-11), bulldozed, or “blown up by a team of Navy SEALs” (Daily Californian 1967). DPR staff also stated that the Navy Seals had used the Cape Horn Tunnel for training and probably closed it with the metal grade.

ICF-FT-10 and ICF-FT-11 are significant features of the Flume (CA-SDI-11296H). The resources represent a major work of construction and were key elements of the Flume design and operations. Because of their association with the Flume, these two resources are considered to be contributing features to CA-SDI-11296H.

Figure 4-12. ICF-FT-10, Overhead facing NW, Inscription in Concrete



Figure 4-13. ICF-FT-11, View NE

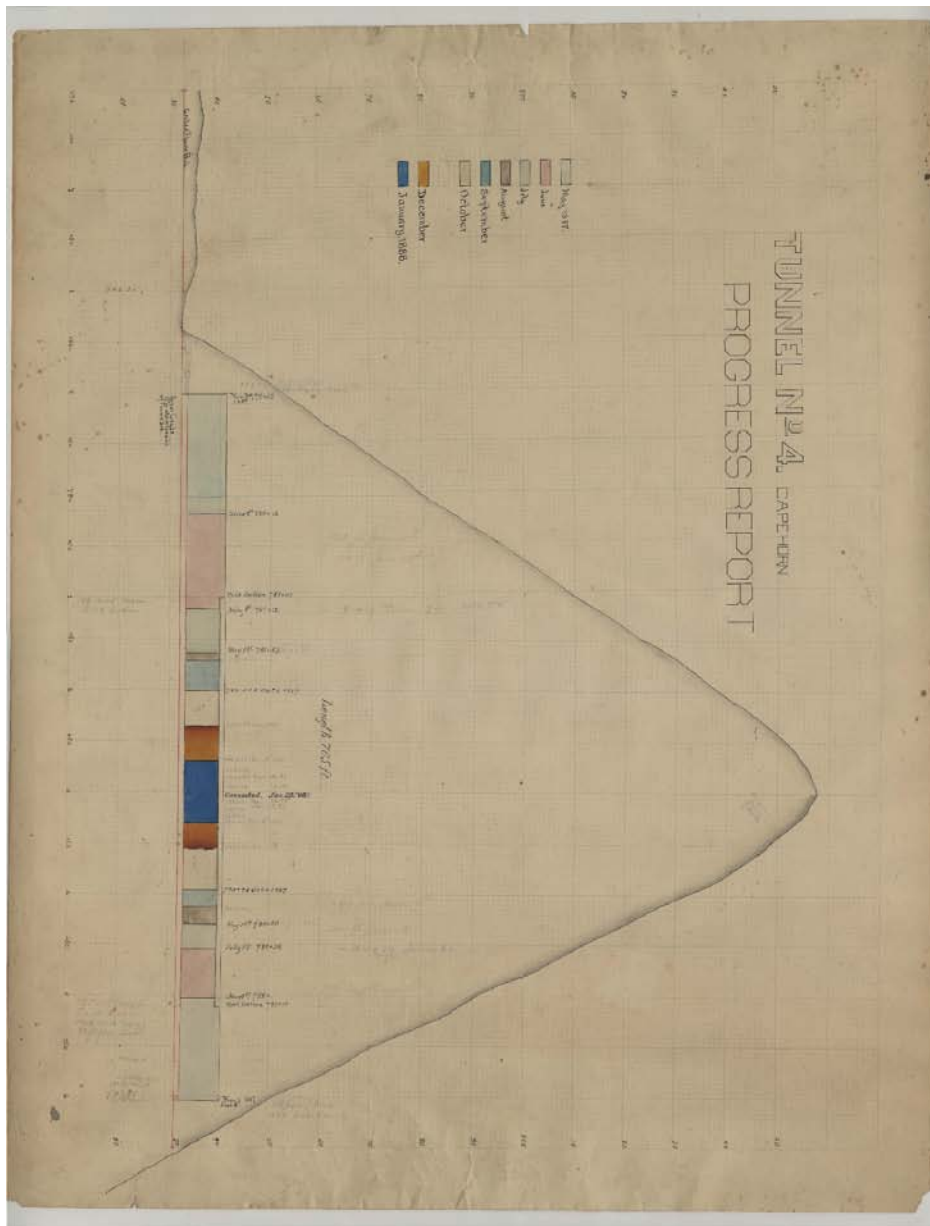


Figure 4-14. San Diego Flume and Tunnel Transporting Water, Unknown Date and Location



(San Diego Flume Date Unknown)

Figure 4-15. Tunnel No. 4-Cape Horn Progress Report, ca. 1888



(Tunnel No. 4-Cape Horn Progress Report ca. 1888)

ICF-FT-12. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the east portion of the project area (Figure 4-16). The wall is composed of stacked subrounded and rounded (most likely local) granitic cobbles ranging in size from 10 to 30 in ML), averaging approximately 20 in ML. Oriented roughly north-south and spanning a wide, shallow drainage/depression, the wall is approximately 20 ft long, 2 ft wide (at the top), and has a constant height of approximately 2 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-16. ICF-FT-12, View E, From W Terminus



ICF-FT-13. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the east portion of the project area (Figure 4-17). The wall is composed of stacked subrounded and rounded (most likely local) granitic cobbles ranging in size from 10 to 30 in ML, averaging approximately 20 in ML. Oriented roughly northeast-southwest and spanning a wide, shallow drainage/depression, the wall is approximately 16 ft long, 2 ft wide (at the top), and has a constant height of approximately 2 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-17. ICF-FT-13, View E, From W Terminus



ICF-FT-14. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the east portion of the project area (Figure 4-18). The wall is composed of stacked subrounded and rounded (most likely local) granitic cobbles ranging in size from four to 30 in ML, averaging approximately 20 in ML. Oriented roughly east-west and spanning an extremely steep slope, the wall is approximately 140 ft long, 2 ft wide (at the top), with a variable height of 2 to 4 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-18. ICF-FT-14, View W, From E Terminus



ICF-FT-15. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the east portion of the project area (Figure 4-19). The wall is composed of loosely stacked subrounded and rounded (most likely local) granitic cobbles and boulders ranging in size from four to 60 in ML, averaging approximately 20 in ML. Oriented roughly northwest-southeast, the wall has been substantially overgrown by grasses and forbs making it impossible to identify its original extent. The wall spans an extremely steep slope, is approximately 100 ft long, 2 to 3 ft wide (at the top), with a variable height of 1 to 5 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-19. ICF-FT-15, View SE, From NW Terminus



ICF-FT-16. This resource is an historic-period linear stacked cobble wall located along the downslope side of the Flume benchcut in the east portion of the project area (Figure 4-20). The wall is composed of tightly stacked angular (most likely local) granitic cobbles and boulders ranging in size from four to 28 in ML, averaging approximately 20 in ML. Oriented roughly northeast-southwest, the wall is approximately 55 ft long, 2 ft wide (at the top), with a variable height of 2 to 4 ft. The feature appears to have been used to stabilize the downslope edge of the Flume and is considered a contributing element of the Flume (CA-SDI-11296H).

Figure 4-20. ICF-FT-16, View NE, From SW Terminus



ICF-FT-17. ICF-FT-17 is the Flume benchcut, recorded outside the project area as CA-SDI-11296H. The proposed Trail is aligned along this resource, taking advantage of the level ground it provides to overcome the steep hillsides throughout the project area. The benchcut runs the course of the entire project area, except where the Cape Horn Tunnel (ICF-FT-10/ICF-FT-11) connects two segments of the benchcut, and across several steep drainages; trestles would have been used to traverse these drainages, connecting benchcut segments. Ranging from 10 to 20 ft wide, the portion of the benchcut within the project area is located at elevations from 235 to 225 m amsl, with a very slight grade descending as it trends west-southwest. Within the project area, only those identified resources described above remain. Other than the actual cut, no remnants of construction materials or activities, or operations activities, are present. The portion of the resource located in the east part of the project area contains mostly low and moderate density short and medium grasses, while the portion within the west part of the project area is covered predominately by moderate to dense tall grasses, shrubs, and trees. Almost the entire length of the benchcut within the project area is clearly visible and in fair to good condition (Figure 4-21).

This resource is a component of the 1889 San Diego Flume, discussed below. In 1989, Roth recorded approximately 2,300 ft of the cutbank from the Cape Horn Tunnel's east entrance (ICF-FT-10) eastward (Roth 1989). The original site record's description of the cutbank appears to still be accurate, and the site record will be updated to include entire 2.53 miles of cutbank within the project area, in addition to the associated resources (discussed above) identified during the current study.

Figure 4-21. ICF-FT-17 (Flume Benchcut), View W, from Project Area E Terminus



CA-SDI-11296H – San Diego Flume. As discussed above, CA-SDI-11296H was originally recorded in 1989 by Roth. This site record encompassed only 2,300 ft of the San Diego Flume benchcut; no associated features or artifacts were noted in this site record. The 1989 recorded portion runs from the NE entrance of the Cape Horn Tunnel (ICF-FT-10) eastward (Roth 1989). DeGiovine and Craft updated the site record in 2008, adding the approximately 705-foot Cape Horn Tunnel and its entrances, located immediately west of the previously recorded segment. However, the 2008 site record update only describes the southwest tunnel entrance (ICF-FT-11), and does not include any other features or artifacts associated with the Flume (DeGiovine and Craft 2008).

All of the cultural resources identified in the current study are features associated with the Flume and will be considered contributing elements to the site, CA-SDI-11296H. The features will be included in a site record update for CA-SDI-11296H (included as CONFIDENTIAL Appendix D), with ICF-FT-17 adding approximately 11,000 ft (2.08mi) to the Flume benchcut/alignment. Of this, 2,125 ft (0.40mi) extends east from the 2008 site boundary's east terminus, and 8,875 ft (1.68mi) extends west and south from the 2008 site boundary's west terminus.

5.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION

5.1. Resource Importance

5.1.1. CA-SDI-11296H

Extensive background on the Flume can be found in Section 1.2.1 of this report and will only be addressed briefly here. Though the Flume itself is no longer present, its benchcut, tunnels, and other features (rock walls, redwood planks, trestle post footing cuts) are clearly visible, with most of them ranging from fair to excellent condition.

The Flume has undoubtedly played an important role in the region's history. Its construction employed thousands of area (and non-area) residents and became the first large-volume steady water source for the City of San Diego and its neighboring communities. Notable among those employed is the large number of Chinese workers who temporarily migrated to the area from San Francisco during the Flume's construction; many of these workers took up permanent residence in the area after the Flume's completion. The Flume's water supply alone led to a large amount of agricultural, industrial, and residential development during the late 19th and early 20th centuries. As a result, the Flume played an important role in the growth of the City and County's populations. Therefore, CA-SDI-11296H (San Diego Flume) is considered eligible for listing on the CRHR under Criterion 1.

Though the Flume was certainly associated with the lives of important local, State, and national individuals, its role appears to have been mostly indirect. Flume owners and those contracted in its construction were probably well-known individuals throughout the area, yet none appear to have been of distinguishable significance. Therefore, CA-SDI-11296H (San Diego Flume) is considered not-eligible for listing on the CRHR under Criterion 2.

For its time, the Flume represented a major engineering achievement. It was hailed as the largest flume ever constructed and required vast quantities of lumber, precise engineering and surveying, large numbers of tunnels and trestles, and detailed logistical planning. The Flume's decorative tunnel façades illustrate unique artistic embellishments and interesting incorporations of local raw materials. The Flume embodies distinctive characteristics of 19th century water conveyance systems and represents a work of high quality engineering. Therefore, CA-SDI-11296H (San Diego Flume) is considered eligible for listing on the CRHR under Criterion 3.

Finally, the vast majority of the Flume's features are no longer present. Though several features, and its alignment, were identified during the current study, no artifacts were observed and it appears that there is little potential for intact subsurface deposits. The extant Flume features, and alignment, do not have potential for yielding additional information on the history of the local area, California, or nation. Therefore, CA-SDI-11296H (San Diego Flume) is considered not-eligible for listing on the CRHR under Criterion 4.

In summary, CA-SDI-11296H (San Diego Flume) is considered a significant historical resource and eligible for listing on the CRHR under Criteria 1 and 3. For the same reasons, and perhaps to an even greater degree than at the state level, CA-SDI-11296H is considered eligible for the San Diego County Local Register of Historical Resources under Criteria 1 and 3.

5.2. Impact Identification

DPR has identified a proposed trail alignment and two alternatives. The Proposed Trail alignment will generally stay within the existing Flume benchcut; construction and maintenance of the trail will impact a ten foot wide alignment. The first alternative (Proposed Trail with Structural Crossing) involves the proposed trail alignment but would include the construction of a structural crossing at Drainage #7. The second alternative (Alternate Trail) would deviate from the proposed alignment near Drainages #7 and #8, where the trail would head north outside of the County-owned easement. This alternative would require acquisition of additional easements from adjacent property owners.

5.2.1. Direct Impacts

Foreseeable direct impacts associated with the Project would result from construction and trail maintenance activities. These activities would involve vegetation clearing and minimal surface grading. For purposes of impact analysis, it is assumed that these activities will involve ground disturbing activities that could impact cultural resources.

Proposed Trail

The Proposed Trail alignment will result in direct impacts to ICF-FT-17, which is the Flume benchcut as recorded herein, a contributing element of CA-SDI-11296H. However, because of the surficial nature of the proposed vegetation clearing and minimal surface grading, construction and maintenance activities will not cause a substantial adverse change in the significance of ICF-FT-17. The alignment of the benchcut will not be altered or destroyed, and its physical expression, including the engineering feat it represents, will not be affected. Furthermore, the trail alignment as illustrated does not intersect with any of the other Flume features, and avoidance recommendations are provided in the following section to ensure that these features are not impacted during construction. Therefore, no significant direct impacts to historical resources will result from construction or maintenance of the Proposed Trail alignment.

Proposed Trail with Structural Crossing

Direct impacts to historical resources resulting from the Proposed Trail with Structural Crossing would be the same as those that would result from the Proposed Trail, detailed above. One feature of the Flume (ICF-FT-03) does occur at Drainage #7, where, under this alternative, a proposed crossing will be constructed. However, the crossing will be placed in a location that will not directly impact ICF-FT-03. Therefore, no significant direct impacts to historical resources will result from construction or maintenance of this alternative.

Alternate Trail

For those portions of the Alternate Trail that follow the same alignment as the Proposed Trail, the impacts will be the same as for the Proposed Trail. This includes a non-significant impact to ICF-FT-17. However, most of the proposed deviation from this alignment in the vicinity of Drainages #7 and #8 has not been surveyed for cultural resources because it falls on non-DPR owned land outside the current study area. If this alternative is selected, the proposed deviation

and a suitable buffer would need to be surveyed for cultural resources. If cultural resources are identified they would need to be avoided (preferred) or evaluated for significance.

5.2.2. Indirect Impacts

Foreseeable indirect impacts associated with the Project would result primarily from trail use. These impacts could include low levels of ground and vegetation disturbance by visitors, including moving rocks along the trail. Other, potentially more severe impacts could include vandalism, like graffiti, or unauthorized deviation from existing trails, which could bring visitors in proximity to recorded cultural resources.

Proposed Trail

It is anticipated that indirect impacts to historical resources resulting from trail use would be insignificant, with appropriate management. The majority of features associated with the Flume trail are cobble features (see Table 4-1). These are constructed of large quantities of rocks and have been in place for over a century. They are an integral component of the Flume benchcut. Further, the route already serves as an un-official trail, and it is not anticipated that indirect impacts from increased use of the trail will differ in kind from those that have already occurred. Although not foreseen to be significant, impacts such as these could be minimized by the use of interpretative signage detailing the importance of these features and the Flume as a whole.

Vandalism to historical resources would most likely occur at the Flume tunnel entrances, ICF-FT-10 and ICF-FT-11. However, grates on the entrances already prevent access to the tunnel itself, reducing the likelihood of extensive vandalism. Potential vandalism at these locations would most likely include spray-painting or other forms of marking on their facades. Superficial alterations to the entrances from vandalism would not significantly impact these features as the features' basic construction design would not be impacted, and the vandalized areas could most likely be cleaned of the damage. Therefore, indirect impacts from vandalism would not result in a substantial adverse change to the significance of historical resources. Again, the use of interpretative signage along the proposed trail, and specifically at ICF-FT-10 and ICF-FT-11, could reduce impacts to the resources from vandalism.

A final impact could result from unauthorized deviation from the marked trail, particularly by bicycle and equestrian use. Again, however, given the nature and location of most of the features (primarily in drainages), it is not anticipated that unauthorized deviation from the trail would result in a significant impact to cultural resources. Regardless, recommendations for minimizing indirect impacts to historical resources related to this are discussed in the following section.

Proposed Trail with Structural Crossing

Indirect impacts to historical resources resulting from the proposed trail with structural crossing are the same as those for the proposed trail, detailed above. Recommendations for minimizing potential indirect impacts to historical resources are discussed in the following section.

Alternate Trail

Indirect impacts to historical resources resulting from the alternate trail alignment likely would be the same as those for the proposed trail, detailed above. However, this will not be known with certainty until the portion of the alignment that deviates from the proposed trail is surveyed.

5.2.3. Cumulative Impacts

Though direct and indirect impacts may result from the proposed project, none will impact cultural resources in such a way that the historical significance of the resources will be impaired. Therefore, the proposed project will not result in a cumulative impact to historical resources.

6.0 MANAGEMENT CONSIDERATIONS—MITIGATION MEASURES AND DESIGN CONSIDERATIONS

6.1. Unmitigated Impacts

There are no foreseen unavoidable impacts to historical resources resulting from the proposed project.

6.2. Mitigated Impacts

Impacts could occur during trail construction, maintenance and use. However, several mitigation measures are proposed to minimize the potential for impacts during these activities. These primarily involve avoidance of cultural resources.

Mitigation Measure CR-1. For the proposed project and two alternatives, prior to construction, DPR will relocate and place temporary fencing around all identified historical resources (elements of CA-SDI-11296H) within the project area for avoidance except for the benchcut (ICF-FT-17), and confirm in the field that the trail alignment avoids these resources. Temporary fencing during construction will reduce likelihood of unforeseen impacts to historical resources from construction activities.

Mitigation Measure CR-2. For the proposed project and two alternatives, prior to trail construction a professional archaeologist will provide cultural resources sensitivity training to construction personnel. Training will address both the types of resources that might be identified, as well as the procedures to be followed in the event of an unanticipated discovery of cultural resources. Any resources that might be found would likely be related to the historic-period flume (CA-SDI-11296H), and would be similar in kind to those already recorded, which include modified boulders, drainage crossing features consisting of natural cobble structures, and wood and other debris. Should cultural resources be encountered during construction, work will stop in the immediate vicinity of the find until a qualified archaeologist can assess the find and provide recommendations for avoidance (preferred) or further treatment, as required. Minimally, any newly identified features related to the flume shall be added to the site record form for CA-SDI-11296H as an update. Though the likelihood for encountering unrecorded cultural resources is low, providing training to field personnel will ensure the proper identification and treatment of any materials should they be encountered.

Mitigation Measure CR-3. For the proposed project and two alternatives, DPR shall install interpretive signage along the trail, and specifically at the tunnel entrances (ICF-FT-10 and ICF-FT-11), to inform trail users of the presence and significance of historical resources along the trail and the importance of leaving the resources undisturbed. The signage should detail the significance of the historical resources along the trail and the importance of leaving the resources undisturbed. By increasing trail users' awareness of the presence and significance of the resources, the likelihood of any unforeseen impacts to the resources could be reduced.

Mitigation Measure CR-4. For the project alternative, Proposed Trail with Structural Crossing only, DPR will verify with GIS data that the structural crossing at Drainage #7 will not be constructed within 3 meters of ICF-FT-03. Per CR-1, temporary fencing will be placed around

the feature during construction. Field verification that the structural crossing avoids ICF-FT-03 will prevent impacts to the resource.

Mitigation Measure CR-5. For the project alternative, Alternate Trail only, DPR will survey any portions of the trail, with a suitable buffer, that fall outside the survey area of the proposed trail. If cultural resources are identified, those resources will be avoided in trail design. Per CR-1, temporary fencing will be placed around the resources during construction. Avoidance of any newly identified resources will ensure there are no impacts to cultural resources.

In addition to the above mitigation measures, the following implementation and management measures are also proposed. These relate to long term maintenance and monitoring of the trail.

For both the proposed project and the two alternatives, DPR will ensure that trail maintenance is confined to the existing trail alignment and is conducted in such a manner as to avoid impacting historical resources within the project area. Conducting trail maintenance with the intent to avoid historical resources will prevent or minimize unforeseen impacts to the resources.

For both the proposed project and the two alternatives, DPR will conduct annual condition monitoring of the historical resources along the trail for signs of vandalism or other alterations, such as unauthorized deviation from the trail, and take corrective measures to rectify potential impacts. Annual inspections of historical resources along the trail will ensure that DPR has accurate information on the condition of the resources and will allow for measures to be taken if impacts have occurred or are in danger of occurring.

Given the location and geology of the project area, there is minimal potential for buried cultural resources. For this reason, and because the project will involve only minimal ground disturbance, archaeological and Native American monitoring is not recommended. For the same reasons, there is very minimal potential for the unanticipated discovery of human remains. However, in the unlikely event that human remains are encountered, specific actions must take place pursuant to CEQA Guidelines Section 15064.5e, Public Resources Code (PRC) Section 5097.98, and Section 87.429 of the County of San Diego Grading, Clearing and Watercourses Ordinance.

Should Native American human remains be identified during ground disturbing activities related to the proposed project, whether during construction, maintenance, or use, State and County mandated procedures shall be followed for the treatment and disposition of those remains, as follows:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, DPR will ensure that the following procedures are followed:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - a. A County (DPR) official is contacted.
 - b. The County Coroner is contacted to determine that no investigation of the cause of death is required.
 - c. If the Coroner determines the remains are Native American, then:

- i. The coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours.
 - ii. The NAHC shall identify the person or persons it believes to be most likely descended from the deceased Native American.
 - iii. The Most Likely Descendant (MLD) may make recommendations to the landowner (DPR), or the person responsible for the excavation work, for the treatment of human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Under the following conditions, the landowner or its authorized representative shall rebury the Native American human remains and associated grave goods on the property in a location not subject to further disturbance:
 - a. The NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 24 hours after being notified by the NAHC.
 - b. The MLD fails to make a recommendation.
 - c. The landowner or his authorized representative rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.
3. Any time human remains are encountered or suspected and soil conditions are appropriate for the technique, ground penetrating radar (GPR) will be used as part of the survey methodology. In addition, the use of canine forensics will be considered when searching for human remains. The decision to use GPR or canine forensics will be made on a case-by-case basis through consultation among the County Archaeologist, the project archaeologist, and the Native American monitor.
4. Because human remains require special consideration and handling, they must be defined in a broad sense. For the purposes of this document, human remains are defined as:
 - a. Cremations, including the soil surrounding the deposit.
 - b. Interments, including the soils surrounding the deposit.
 - c. Associated grave goods.

In consultation among the County archaeologist, project archaeologist, and Native American monitor, additional measures (e.g., wet-screening of soils adjacent to the deposit or on-site) may be required to determine the extent of the burial.

6.3. Effects Found Not to be Significant

Trail construction and maintenance activities will result in direct impacts to ICF-FT-17 (the Flume benchcut alignment), but these impacts will not be significant given that only minor modification will be required, consisting of vegetation removal and minor grading.

7.0 REFERENCES

Adema, Charles Joseph

- 1993 *Our Hills and Valleys*. San Diego Historical Society, San Diego.

Almstedt, Ruth

- 1974 *Bibliography of the Diegueño Indians*. Ballena Press, Ramona.
- 1980 *Ethnohistoric Documentation of Puerta La Cruz, San Diego County, California*. California Department of Transportation, San Diego.

Berryman, Judy A.

- 1981 *Archaeological Mitigation Report for Santee Greens SDi-5669*. Unpublished report. Archaeological Consulting & Technology. On file, ICF International, San Diego.

Brack, Elaine

- 2008 *Conversation with ICF International Researcher Andrea Craft*. Lakeside, California. 07 May.

Bull, Charles

- 1983 *Shaking the Foundations: The Evidence of San Diego Prehistory*. Cultural Resource Management Casual Papers Vol. 1, No. 3: 15-64. Department of Anthropology, San Diego State University.

Burt, William H., and Richard P. Grossenheider

- 1976 *A Field Guide to the Mammals of America North of Mexico*. Houghton Mifflin Company, Boston.

California Geological Survey

- 2010 *Geological Map of California*. Available online, <http://www.quake.ca.gov/gmaps/GMC/stategeologicmap.html>. Accessed 15 May 2012.

Carrico, Richard L.

- 1998 *Ethnohistoric Period*. In *Prehistoric and Historic Archaeology of Metropolitan San Diego: A Historic Properties Background Study*. Draft document. ASM Affiliates, Inc. Submitted to Metropolitan Wastewater Public Works, San Diego, California.
- 2008 *Strangers in a Stolen Land: Indians of San Diego County from Prehistory to the New Deal*. Sun Belt Publications, San Diego.

Carrico, Richard L., and Theodore G. Cooley

- 2005 Cultural Resources Report of the Survey and Testing Programs for the Oak Country Estates Development in Ramona, San Diego County, California. ICF International, San Diego. On file, ICF International, San Diego.

Christenson, Lynne E.

- 1990 The Late Prehistoric Yuman People of San Diego County, California: Their Settlement and Subsistence System. Unpublished Ph.D. dissertation, Department of Anthropology, Arizona State University, Tempe.

City of San Diego

- 1925 Engineers' Report on Condition of Cuyamaca Flume and Analysis of Costs, Expenses and Income Under Terms of Proposed Agreement. 30 March. Unpublished report on file, County of San Diego Department of Parks and Recreation.
- 1926 *Plans for a Pipeline from El Capitan Damsite or from University Heights Reservoir*. F.A. Rhodes, City Engineer, editor. 15 February. Unpublished report on file, ICF International, San Diego.

Cohn, H. Jerry

- 1988 El Monte Regional Park History. Unpublished manuscript on file, County of San Diego Department of Parks and Recreation.

Corum, Joyce M. and Christopher White

- 1986 Extended Phase I and Phase II Archaeological Test Excavations at Site CA-SDI-9243, Santee, California: 11-SD-52, P.M. 7.3/17.2, 112222-047050. California Department of Transportation, San Diego. Unpublished report on file, California Department of Transportation, San Diego.

County of San Diego

- 1984 Generalized Vegetation Map. Sweetwater River Press, National City, California. On file, County of San Diego.
- 2007 Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources. Department of Planning and Land Use and Department of Public Works.

Cupples, Sue Ann

- 1975 *An Archaeological Survey of the San Diego River Valley*. Unpublished report on file, California Historical Information System, South Coastal Information Center, San Diego State University.

Daily Californian

- 1967 Gravity Flow Brought Water From Mountains. 25 August:1.

DeGiovine, M., and A. Craft

- 2008 CA-SDI-11296H. State of California Department of Parks and Recreation Primary Record (Update). On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Englehardt, Zephyrin

- 1920 *San Diego Mission*. James H. Barry Company, San Francisco.

Ezell, Paul H.

- 1987 The Harris Site: An Atypical San Dieguito Site or Am I Beating a Dead Horse? In *San Dieguito-La Jolla: Chronology and Controversy*, edited by D.R. Gallegos, pp. 15-22. San Diego County Archaeological Society Research Paper No. 1, San Diego.

Gallegos, Dennis R.

- 1985 *Batiquitos Lagoon Revisited*. Cultural Resource Management Casual Papers Vol. 2, No. 1. Department of Anthropology, San Diego State University.
- 1987 A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito-La Jolla: Chronology and Controversy*, edited by D.R. Gallegos, pp. 23-24. San Diego County Archaeological Society Research Paper No. 1, San Diego.
- 1991 Antiquity and Adaptation at Agua Hedionda, Carlsbad, California. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J.M. Erlandson and R.H. Colten. pp. 19-42. Perspectives in California Archaeology, Vol. 1, J.E. Arnold, general editor, Institute of Archaeology, University of California, Los Angeles.

Gallegos, Dennis R., Carolyn Kyle, Adella Schroth, and Patricia Mitchell

- 1998 *Management Plan for Otay Mesa Prehistoric Resources, San Diego, California*. Unpublished report. Gallegos & Associates. Submitted to the City of San Diego and California Department of Transportation. On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Glenn, Brian K.

- 1999 *Cultural Resources Investigations within the Starwood Project Area (TM5073), Santa Fe Valley, San Diego County, California*. Unpublished report on file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Griffin, Ernst C., and John R. Weeks

- 2004 Peopling the Region: San Diego's Population Patterns. In *San Diego: An Introduction to the Region*. 3rd ed. Edited by Philip R. Pryde. Sunbelt Publications, Inc., San Diego.

Hedges, Kenneth

- 1975 Notes on the Kumeyaay: A Problem of Identification. *The Journal of California Anthropology* 2(1):71-83.

Jordan, Stacey C., and William T. Eckhardt

- 2008 *Cultural Resources Phase I Survey and Inventory of the Proposed Trail and Equestrian Staging Areas El Monte Regional Park, San Diego County, California*. Unpublished report. ICF Jones & Stokes. Submitted to the County of San Diego Department of Parks and Recreation. On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Jordan, Stacey C., William T. Eckhardt, and Andrea M. Craft

- 2008 *Cultural Resources Phase I Survey and Inventory of County of San Diego El Capitan and Oakoasis Preserves and El Monte and Louis A. Stelzer Regional Parks, San Diego County, California*. Unpublished report. ICF Jones & Stokes. Submitted to the County of San Diego Department of Parks and Recreation. On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Koerper, Henry C.

- 1979 The Question of the Chronological Placement of the Shoshonean Presence in Orange County, California. *Pacific Coast Archaeological Society Quarterly* 15(3):69-84.

Koerper, Henry C., Paul E. Langenwaller II, and Adella Schroth

- 1991 Early Holocene Adaptations and the Transition Phase Problem: Evidence from the Allan O. Kelly Site, Agua Hedionda Lagoon. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J.M. Erlandson and R.H. Colten. pp. 43-62. Perspectives in California Archaeology, Vol. 1, J.E. Arnold, general editor, Institute of Archaeology, University of California, Los Angeles.

Kroeber, Alfred L.

- 1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D. C.

Langdon, Margaret

- 1975 Kamia and Kumeyaay: A Linguistic Perspective. *The Journal of California Anthropology* 2(1):64-70.

Laylander, Don (editor)

- 2006 Research Issues in San Diego Prehistory. Electronic document. Available online, <http://www.sandiegoarchaeology.org/Laylander/Issues/index.htm>. Accessed 31 May 2012.

Lee, Melicent

- 1937 *Indians of the Oaks*. Ginn and Co., Boston.

Loughlin, Barbara A.

- 1973 *Environmental Impact Report (Archaeology) for RAM Construction Company, Fallbrook, California*. Unpublished report on file, the California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Luomala, Katherine

- 1963 Flexibility in Sib Affiliation among the Diegueño. *Ethnology* 2(3): 282-301.
- 1978 Tipai-Ipai. In *California*, edited by R.F. Heizer, pp. 592-608. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

McCown, Benjamin E.

- 1945 An Archaeological Survey of the San Vicente Lake Bed, San Diego County, California. *American Antiquity* 10:255-264.

McDonald, Allison Meg, and James D. Eighmey

- 1998 Late Period Prehistory in San Diego. In *Prehistoric and Historic Archaeology of Metropolitan San Diego: A Historic Properties Background Study*. Unpublished report. ASM Affiliates, Carlsbad, California.

Meighan, Clement W.

- 1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2):215-227.

Moriarty, James R., III

- 1969 The San Dieguito Complex: Suggested Environmental and Cultural Relationship. *Anthropological Journal of Canada* 6(3):1-18.
- 1987 A Separate Origins Theory for Two Early Man Cultures in California: Environmental and Cultural Material for the Batiquitos Lagoon Region. In *San Dieguito-La Jolla: Chronology and Controversy*, edited by D.R. Gallegos, pp. 49-60. San Diego County Archaeological Society Research Paper No. 1, San Diego.

Norwood, Richard H.

- 1980 *The Archaeological Resources of Fairbanks Ranch, Rancho Santa Fe, California*. Unpublished report. RECON. On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge

- 2008 *Draft Vegetation Communities of San Diego County*. Based on Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Unpublished report. Available online, http://www.sdcountry.ca.gov/dplu/docs/Veg_Comm_SDCountry_2008.pdf. Accessed 15 May 2012.

Pacific Rural Press

- 1888 The Largest Flume in the World. 24 November: 441.

Peterson, Roger T.

- 1961 *A Field Guide to Western Birds*. Houghton Mifflin Company, Boston.

Pham, Angela Ngoctien

- 2011 Historical and Archaeological Patterns of Water Use in San Diego County: A Case Study of the Whaley House Cistern/Well. M.A. Thesis, Department of Anthropology, San Diego State University.

Pico, Anthony R.

- 2000 The Kumeyaay Millenium: The story of the original San Diegans. *San Diego Metropolitan*. February.

Pourade, Richard F.

- 1960 *The Explorers: the History of San Diego*. Union-Tribune Publishing, San Diego.
1961 *Time of the Bells: the History of San Diego*. Union-Tribune Publishing, San Diego.

Pryde, Philip R. (editor)

- 1984 *San Diego: An Introduction to the Region*. 2nd ed. Kendall/Hunt Publishing Company, Dubuque, Iowa.

Quastler, Imre E.

- 2004 San Diegans on the Move: Transportation in the County. In *San Diego: An Introduction to the Region*, 5th ed, edited by Philip R. Pryde. Sunbelt Publications, Inc., San Diego.

Rawls, James J. and Walton Bean

2003 *California: An Interpretive History*. 8th ed. McGraw-Hill Publishing, San Francisco.

Rogers, Malcolm J.

1939 *Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas*. San Diego Museum Papers No. 3.

1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1(2):167-198.

1966 *Ancient Hunters of the Far West*, edited by R.F. Pourade, pp. 21-108. Copley Press, La Jolla, California.

Roth, Linda

1989 CA-SDI-11296H. State of California Department of Parks and Recreation Primary Record (Update). On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Sahlins, Marshall

1968 *Tribesmen*. Foundations of Modern Anthropology Series, Marshall D. Sahlins. editor, Prentice-Hall, New York.

San Diego Flume

ca. 1888a. Photograph. On file, San Diego History Museum, San Diego. Available online, <http://www.sandiegohistory.org/collections/viewcards/flume.htm>. Accessed 31 May 2012.

ca. 1888b. Photograph. On file, San Diego History Museum, San Diego. Available online, <http://www.sandiegohistory.org/collections/viewcards/flume.htm>. Accessed 31 May 2012.

Date Unknown. Photograph. On file, Bancroft Library, University of California, Berkeley, Berkeley. Available online, <http://content.cdlib.org/ark:/13030/tf2w10074f/>. Accessed 31 May 2012.

San Diego Flume Dedication

1889 Photograph. On file, San Diego History Museum, San Diego. Available online, <http://www.sandiegohistory.org/books/smythe/4-4.htm>. Accessed 31 May 2012.

San Diego Flume Transporting Water

Date Unknown. Photograph. On file, Bancroft Library, University of California, Berkeley, Berkeley. Available online, <http://content.cdlib.org/ark:/13030/tf2w10074f/>. Accessed 31 May 2012.

Schroth, Adella B., Roxanne Phillips, and Dennis Gallegos

- 1996 *Cultural Resources Survey of the Santa Margarita River Drainage, Camp Pendleton*. Unpublished report. On file, California Historical Resources Information System, South Coastal Information Center, San Diego State University.

Scientific American

- 1890 The San Diego Flume System. 15 March:167.

Service, Elman R.

- 1966 *The Hunters*. Foundations of Modern Anthropology Series, Marshall D. Sahlins. editor, Prentice-Hall, New York.
- 1971 *Primitive Social Organization: An Evolutionary Perspective*. Random House, New York.

Sherman, Lola

- 2001 *A History of North San Diego County: From Mission to Millennium*. Heritage Media Group. Carlsbad, California.

Shipek, Florence C.

- 1982 Kumeyaay Socio-Political Structure. *Journal of California and Great Basin Anthropology* 4(2): 296-303.
- 1989 Mission Indians and Indians of California Land Claims. *American Indian Quarterly* 13(4), Special Issue: The California Indians (Autumn): 409-420.
- 1991 *Delfina Cuero: Her Autobiography, An Account of her Last Years, and Her Ethnobotanic Contributions*. Ballena Press, Menlo Park, California.

Sholders, Mike

- 2002 Water Supply Development in San Diego and a Review of Related Outstanding Projects. *The Journal of San Diego History*, Winter 48:1.

Spier, Leslie

- 1923 *Southern Diegueño Customs*. University of California Publications in American Archaeology and Ethnology Vol. 20:294-358.

Stebbins, Robert C.

- 1966 *A Field Guide to Western Reptiles and Amphibians*. Houghton Mifflin Company, Boston.

Strathman, Theodore

- 2004 Land, Water, and Real Estate: Ed Fletcher and the Cuyamaca Water Company, 1910-1926. *The Journal of San Diego History*. Summer/Fall 50(3 and 4):124-144.

True, Delbert L.

- 1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3):255-263.
- 1966 Archaeological Differentiation of Shoshonean and Yuman Speaking Groups in Southern California. Ph.D. dissertation, University of California, Los Angeles.
- 1970 *Investigation of a Late Prehistoric Complex in Cuyamaca Rancho State Park, San Diego County, California*. Archaeological Survey Monograph, University of California, Los Angeles.
- 1980 The Pauma Complex in Northern San Diego County: 1978. *Journal of New World Archaeology* 3(4):1-30.

True, Delbert L., and Eleanor Beemer

- 1982 Two Milling Stone Inventories from Northern San Diego County, California. *Journal of California and Great Basin Anthropology* 4(2):233-261.

True, Delbert L., Clement W. Meighan, and Harvey Crew

- 1974 *Archaeological Investigations at Molpa, San Diego County, California*. University of California Publications in Anthropology Vol. 11. University of California Press, Berkeley.

Tunnel No. 4-Cape Horn Progress Report

- ca. 1888 Engineering plan. On file, County of San Diego Department of Parks and Recreation. Received from DPR staff Chuck Tucker via email, 13 February 2012.

United States Department of Agriculture (USDA), Natural Resources Conservation Service

- 2012 Web Soil Survey. Available online, <http://websoilsurvey.nrcs.usda.gov>. Accessed 15 May 2012.

United States Department of the Interior (USDOI) and United States Geological Survey (USGS)

- 1918 *Southern California Floods of January 1916*. Water Supply Paper 426. Government Printing Office, Washington.

United States Geological Survey (USGS)

- 1903 *El Cajon, California*. 15' series (1:63,360) Topographic Quadrangle Map.
- 1988a *El Cajon Mountain, California*. 7.5' series (1:24,000) Topographic Quadrangle Map. Original data 1965, photorevised 1988.

- 1988b *Alpine, California*. 7.5' series (1:24,000) Topographic Quadrangle Map. Original data 1955, photorevised 1988.

Walker, Dan

- 2004 *Thirst for Independence: The San Diego Water Story*. Sunbelt Publications, San Diego.

Wallace, William J.

- 1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214-230.

Warren, Claude N.

- 1966 *The San Dieguito Type Site: M. J. Rogers' 1938 Excavation on the San Dieguito River*. San Diego Museum Paper No. 6, San Diego.
- 1967 The San Dieguito Complex: A Review and Hypothesis. *American Antiquity* 32(2):168-185.
- 1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams, pp. 1-14. Eastern New Mexico Contributions in Anthropology 1(3). Portales, New Mexico
- 1987 The San Dieguito and La Jolla: Some Comments. In *San Dieguito-La Jolla: Chronology and Controversy*, edited by D.R. Gallegos, pp. 73-85. San Diego County Archaeological Society Research Paper No. 1, San Diego.

Warren, Claude N., Gretchen Siegler, and Frank Dittmer

- 1998 Paleoindian and Early Archaic Periods. In *Prehistoric and Historic Archaeology of Metropolitan San Diego: A Historic Properties Background Study*. Unpublished draft report. ASM Affiliates.

Warren, Claude N., and Delbert L. True

- 1961 *The San Dieguito Complex and Its Place in San Diego County Prehistory*. Archaeological Survey Annual Report, 1960-1961, pp. 246-291. University of California, Los Angeles.

White, Raymond C.

- 1963 *Luiseño Social Organization*. University of California Publications in American Archaeology and Ethnology Vol. 48, No. 2:91-194.

Wiley, Loraine M., and Christy Dolan

- 2004 *Above and Below the Valley: Report on Data Recovery at San Vicente Reservoir, San Diego County, California*. Unpublished report. On file, California Historical

Resources Information System, South Coastal Information Center, San Diego State University.

Wray, Christopher

- 1999 Notes on the San Diego Flume from Original Plans and Testimonials. Unpublished manuscript. Helix Water District, La Mesa, California.

8.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

Preparers:

Robin Hoffman, MA

Michael R. Bever, PhD, RPA.

ICF International, Project Archaeologist

ICF International, Principal Investigator

Persons and Organizations Contacted:

Dave Singleton

Edwin Romero, Chairperson

Gwendolyn Parada, Chairperson

Allen E. Lawson, Chairperson

Danny Tucker, Chairperson

Sydney Morris, Environmental Coordinator

Anthony R. Pico, Chairperson

Ron Christman

Ralph Goff, Chairperson

Chairperson

Mark Romero, Chairperson

Carmen Lucas

Rebecca Osuna, Spokesperson

Steve Banegas, Spokesperson

Bernice Papa, Vice Spokesperson

Will Micklin, Executive Director

Michael Garcia, Vice Chairperson

Clint Linton, Director of Cultural Resources

Rodney Kephart, Environmental Coordinator

Leroy J. Elliott, Chairperson

M. Louis Guassac

Frank Brown, Coordinator

Native American Heritage Commission

Barona Group of Capitan Grande

La Posta Band of Mission Indians

San Pasqual Band of Mission Indians

Sycuan Band of the Kumeyaay Nation

Sycuan Band of the Kumeyaay Nation

Viejas Band of Kumeyaay Indians

Kumeyaay Cultural Historic Committee

Campo Band of Mission Indians

Jamul Indian Village

Mesa Grande Band of Mission Indians

Kwaaymii Laguna Band of Mission Indians

Inaja Band of Mission Indians

Kumeyaay Cultural Repatriation Committee

Kumeyaay Cultural Repatriation Committee

Ewiiapaayp Tribal Office

Ewiiapaayp Tribal Office

Ipai Nation of Santa Ysabel

Santa Ysabel Band of Diegueno Indians

Manzanita Band of the Kumeyaay Nation

Kumeyaay Diegueno Land Conservancy

Inter-Tribal Cultural Resource Protection Council

9.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS

| Mitigation Measure | Design Consideration |
|---|---|
| CR-1. For the proposed project and two alternatives, prior to construction, DPR will relocate and place temporary fencing around all identified historical resources (elements of CA-SDI-11296H) within the project area for avoidance except for the benchcut (ICF-FT-17), and confirm in the field that the trail alignment avoids these resources. | Temporary fencing during construction will reduce likelihood of unforeseen impacts to historical resources from construction activities. |
| CR-2. For the proposed project and two alternatives, prior to trail construction a professional archaeologist will provide cultural resources sensitivity training to construction personnel. Training will address both the types of resources that might be identified, as well as the procedures to be followed in the event of an unanticipated discovery of cultural resources. Any resources that might be found would likely be related to the historic-period flume (CA-SDI-11296H), and would be similar in kind to those already recorded, which include modified boulders, drainage crossing features consisting of natural cobble structures, and wood and other debris. Should cultural resources be encountered during construction, work will stop in the immediate vicinity of the find until a qualified archaeologist can assess the find and provide recommendations for avoidance (preferred) or further treatment, as required. Minimally, any newly identified features related to the flume shall be added to the site record form for CA-SDI-11296H as an update. | Though the likelihood for encountering unrecorded cultural resources is low, providing training to field personnel will ensure the proper identification and treatment of any materials should they be encountered. |
| CR-3. For the proposed project and two alternatives, DPR shall install interpretive signage along the trail, and specifically at the tunnel entrances (ICF-FT-10 and ICF-FT-11), to inform trail users of the presence and significance of historical resources along the trail and the importance of leaving the resources undisturbed. The signage should detail the significance of the historical resources along the trail and the importance of leaving the resources undisturbed. | By increasing trail users' awareness of the presence and significance of the resources, the likelihood of any unforeseen impacts to the resources could be reduced. |
| CR-4. For the project alternative, Proposed Trail with Structural Crossing only, DPR will verify with GIS data that the structural crossing at Drainage #7 will not be constructed within 3 meters of ICF-FT-03. Per CR-1, temporary fencing will be placed around the feature during construction. | Field verification that the structural crossing avoids ICF-FT-03 will prevent impacts to the resource. |
| CR-5. For the project alternative, Alternate Trail only, DPR will survey any portions of the trail, with a suitable buffer, that fall outside the survey area of the proposed trail. If cultural resources are identified, those resources will be avoided in trail design. Per CR-1, temporary fencing will be placed around the resources during construction. | Avoidance of any newly identified resources will ensure there are no impacts to cultural resources. |

APPENDIX A
Records Search Confirmation



South Coastal Information Center
4283 El Cajon Blvd., Suite 250
San Diego, CA 92105
Office: (619) 594-5682
Fax: (619) 594-4483
www.scic.org
nick@scic.org

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

Company: ICFI
Company Representative: Robin D. Hoffman, M.A.
Date Processed: 5/22/2012
Project Identification: County of San Diego DPR Flume Trail #00026.12

Search Radius: 1 mile

Historical Resources: ND

Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: ND

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: ND

A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: ND

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

| Summary of SHRC Approved CHRIS IC Records Search Elements | |
|---|-----|
| Address-Mapped | no |
| Shapes: | 0 |
| Spatial Features: | 75 |
| Searchable Pages: | 28 |
| Standard Pages: | 246 |
| Aerial Photos: | 0 |
| Quads: | 2 |
| Hours: | 1 |
| RUSH: | no |

APPENDIX B
Native American Coordination



11 May 2012

Mr. Dave Singleton
Native American Heritage Commission
915 Capitol Mall
Room 364
Sacramento, California 95814

Re: Cultural Resources Inventory for the County of San Diego Department of Parks and Recreation Flume Trail Project

Dear Mr. Singleton:

This letter is a request for review of the Sacred Lands File for the area described below. Any information you are able to provide would be appreciated. Appropriate and other knowledgeable tribal members whose names and addresses you provide will be contacted.

ICF International is conducting a cultural resources inventory for the County of San Diego Department of Parks and Recreation, which proposes to construct an approximately 2.5-mile recreational trail. The project is located approximately three miles east-northeast of Lakeside, California (Figure 1). The project area consists of a 50-foot wide corridor, composed of a ten-foot wide trail alignment and 20-foot wide buffer to each side, over an approximately 2.5-mile linear alignment.

The project area includes portions of the El Cajon Land Grant of Township 15 South, Range 1 East, San Bernardino Base and Meridian as depicted on the El Cajon Mtn., California and Alpine, California 7.5-minute USGS quadrangles (scale 1:24,000).

If you have any questions please feel free to contact me by telephone at 858-444-3959 or e-mail at rhoffman@icfi.com. Our fax number is 858-578-0573.

Thank you,

Robin D. Hoffman, M.A.
Archaeologist

Encl. Figure 1 - Project Area

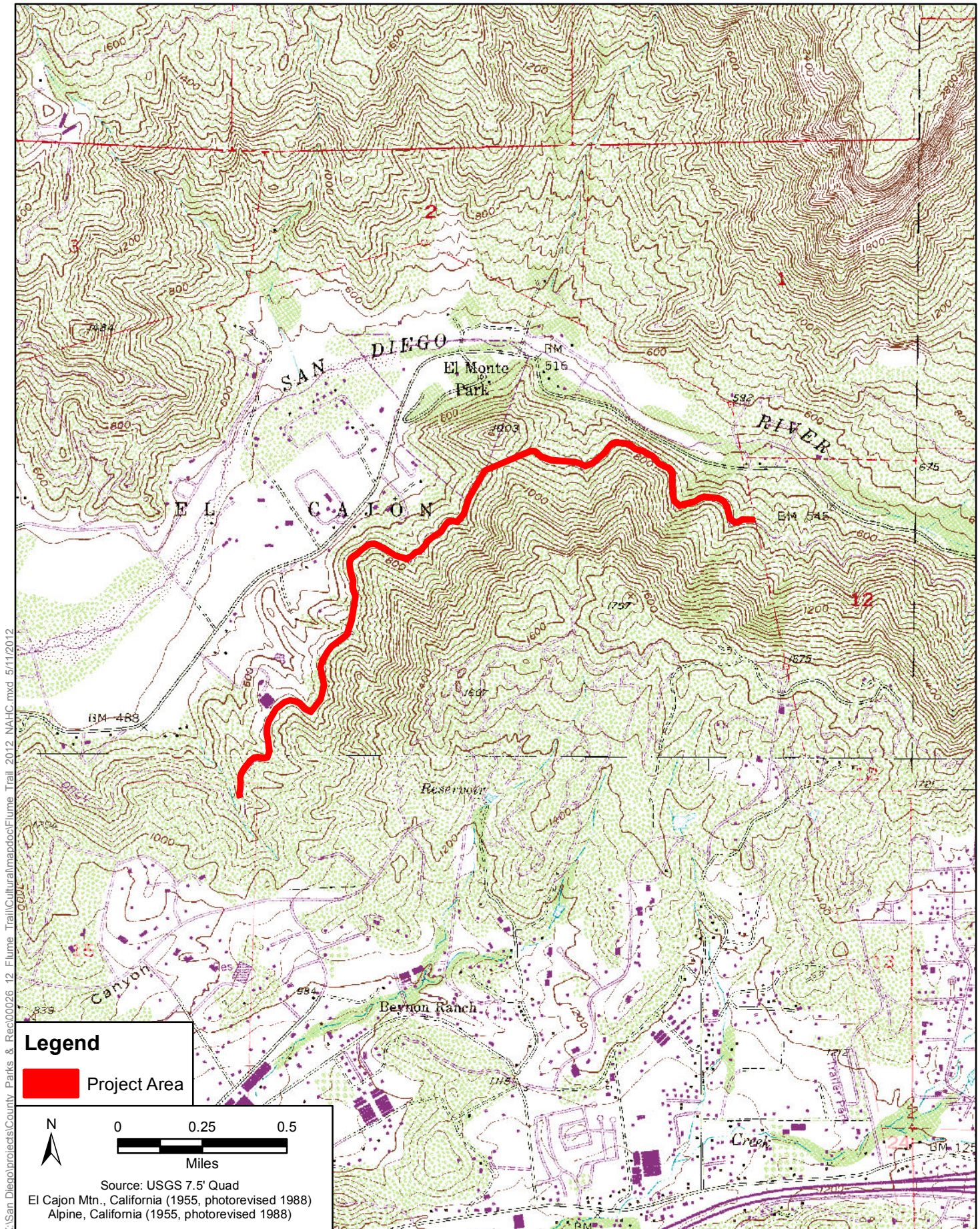


Figure 1
Project Area
County of San Diego DPR Flume Trail Project

STATE OF CALIFORNIA

Edmund G. Brown, Jr. Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
de_nahc@pacbell.net



May 14 2012

Ms. Robin D. Hoffman, M.A., Archaeologist

County of San Diego Department of Parks & Recreation

Overland Avenue
San Diego, CA 92123

Sent by FAX to: 858-578-0573

No. of Pages: 6

Re: **Sacred Lands File Search and Native American Contacts list for the proposed
"Recreation Flume Trail Project;" located three miles northeast of the City of
Lakeside, San Diego County, California**

Dear Ms. Hoffman:

The Native American Heritage Commission (NAHC) conducted a Sacred Lands File search of the 'area of potential effect,' (APE) based on the USGS coordinates provided and **Native American cultural resources were not identified** in the project area of potential effect (e.g. APE): you specified. However, this area is known to the NAHC to be very culturally sensitive. Also, please note; the NAHC Sacred Lands Inventory is not exhaustive and does not preclude the discovery of cultural resources during any project groundbreaking activity.

California Public Resources Code §§5097.94 (a) and 5097.96 authorize the NAHC to establish a Sacred Land Inventory to record Native American sacred sites and burial sites. These records are exempt from the provisions of the California Public Records Act pursuant to California Government Code §6254 (r). The purpose of this code is to protect such sites from vandalism, theft and destruction.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list that the NAHC has provided in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "substantial," and Section 2183.2 which requires documentation, data recovery of cultural resources.

The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos: 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 4(f), Section 110 (f)(k) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The NAHC remains concerned about the limitations and methods employed for NHPA Section 106 Consultation.

Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision

on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton

Attachment: Native American Contact List

Native American Contacts

San Diego County

May 14, 2012

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside , CA 92040
sue@barona-nsn.gov
(619) 443-6612
619-443-0681

Viejas Band of Kumeyaay Indians
Anthony R. Pico, Chairperson
PO Box 908 Diegueno/Kumeyaay
Alpine , CA 91903
jrothau@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120 Diegueno/Kumeyaay
Boulevard , CA 91905
gparada@lapostacasino.
(619) 478-2113
619-478-2125

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road Diegueno/Kumeyaay
Alpine , CA 92001
(619) 445-0385

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365 Diegueno
Valley Center, CA 92082
allenl@sanpasqualband.com
(760) 749-3200
(760) 749-3876 Fax

Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno/Kumeyaay
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax

Sycuan Band of the Kumeyaay Nation
Danny Tucker, Chairperson
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92019
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax

Jamul Indian Village
Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Recreation Flume Trail Project; located near the City of Lakeside; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts

San Diego County

May 14, 2012

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O. Box 270 Diegueno
Santa Ysabel, CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley, CA 91962
(619) 709-4207

Inaja Band of Mission Indians
Rebecca Osuna, Spokesperson
2005 S. Escondido Blvd. Diegueno
Escondido, CA 92025
(760) 737-7628
(760) 747-8568 Fax

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside, CA 92040
sbenegas50@gmail.com
(619) 742-5587
(619) 443-0681 FAX

Ewiiapaayp Tribal Office
Will Micklin, Executive Director
4054 Willows Road Diegueno/Kumeyaay
Alpine, CA 91901
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Ewiiapaayp Tribal Office
Michael Garcia, Vice Chairperson
4054 Willows Road Diegueno/Kumeyaay
Alpine, CA 91901
michaelg@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Ipai Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507 Diegueno/Kumeyaay
Santa Ysabel, CA 92070
cjlinton73@aol.com
(760) 803-5694
cjlinton73@aol.com

Santa Ysabel Band of Diegueno Indians
Rodney Kephart, Environmental Coordinator
PO Box 130 Diegueno
Santa Ysabel, CA 92070
syirod@aol.com
(760) 765-0845

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Recreation Flume Trail Project; located near the City of Lakeside; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

**Native American Contacts
San Diego County
May 14, 2012**

Sycuan Band of the Kumeyaay Nation
Sydney Morris, Environmental Coordinator
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92019
smorris@sycuan-nsn.gov
(619) 445-2613
(619) 445-1927-Fax

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 478-2113

Manzanita Band of the Kumeyaay Nation
Leroy J. Elliott, Chairperson
P.O. Box 1302 Diegueno/Kumeyaay
Boulevard , CA 91905
ljbirdsinger@aol.com
(619) 766-4930
(619) 766-4957 - FAX

Kumeyaay Diegueno Land Conservancy
M. Louis Guassac
P.O. Box 1992 Diegueno/Kumeyaay
Alpine , CA 91903
guassac@onebox.com
(619) 952-8430

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
FIREFIGHTER69TFF@AOL.
(619) 884-6437

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Recreation Flume Trail Project; located near the City of Lakeside; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.



14 May 2012

[Name, title]
[Organization]
[Address]
[City, State Zip]

Subject: *Cultural Resources Inventory for the County of San Diego DPR Flume Trail Project*

Dear [Name]:

I am writing to inform you that the County of San Diego Department of Parks and Recreation is planning to construct an approximately 2.5-mile recreational trail. The Project is located approximately three miles east-northeast of Lakeside, California (Figure 1), and consists of the construction of a ten-foot wide improved dirt trail over an approximately 2.5-mile linear alignment. The Project Area includes portions of the El Cajon Land Grant of Township 15 South, Range 1 East, San Bernardino Base and Meridian as depicted on the El Cajon Mtn., California and Alpine, California 7.5-minute USGS quadrangles (scale 1:24,000).

ICF International has been retained to conduct a Phase I cultural resources survey and inventory to determine the presence or absence of cultural resources on or near the project property. The technical study includes both archival research and an intensive pedestrian survey. Archival research refers to both written and oral history including record searches at the South Coastal Information Center, the Native American Heritage Commission (NAHC), local historical societies and libraries, as well as Native American consultation. The NAHC did not identify any resources of concern in the Project Area, but did identify you as a person who may have concerns or knowledge of cultural resources in the project area. We are writing to invite you to participate in cultural resource studies for the project. Any information you might be able to share about the Project Area would greatly enhance the overview and would be most appreciated.

If you would like to participate in the consultation process, or if you have any recommendations regarding the Project, please address them to me so that I can incorporate them into our draft report. As required by State law, all site data and other culturally sensitive information will not be released to the general public and will be kept strictly confidential.

If you have any questions please feel free to contact me by telephone at 858-444-3959 or e-mail at rhoffman@icfi.com. Our fax number is 858-578-0573.

Thank you,

A handwritten signature in black ink that reads "Robin D. Hoffman". The signature is written in a cursive, flowing style.

Robin D. Hoffman, M.A.
Archaeologist

Encl. Figure 1 Project Location

| Correspondence Date | In/Out | Correspondence Medium | Correspondence Subject | Family Last Name | Name and Address | Phone Number | Fax | Email | State | Affiliation | Response Received | Follow-up Contact | Additional Comments |
|---------------------|--------|--------------------------------|--|------------------|---|---------------------------------|--------------|--|-------|---|---|-------------------|---------------------|
| 11-May-12 | Out | Email with attached letter/r/w | Shared Lands records search request | Singleton | Dave Singleton, Native American Heritage Commission, 315 Capitol Mall, Room 354 Sacramento, CA 95814 | 916.653.6231 | 916.657.5390 | dsinglet@pacbell.net | CA | NAHC | 5/11/2012 - confirmed receipt of Shared Lands request email with letter/r/w | | |
| 14-May-12 | In | Fax | Shared Lands records search request results/reply | Singleton | Dave Singleton, Native American Heritage Commission, 315 Capitol Mall, Room 354 Sacramento, CA 95814 | 916.653.6231 | 916.657.5390 | dsinglet@pacbell.net | CA | NAHC | 5/11/2012 - confirmed receipt of Shared Lands request email with letter/r/w | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Romero | Edwin Romero, Chapman, 1006 Barona Rd. Sacramento, CA 95814 | 619.441.6612; 619.441.0681 | | edwin@bcwccs.com | CA | Buena Vista Group of the Capitan Grande | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Parada | Guadalupe Parada, Chapman, PO Box 11 Sacramento, CA 95814 | 619.478.2113; 619.478.2125 | | guadalupe@parada.com | CA | La Poma Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Umaron | Allen L. Umaron, Chapman, PO Box 365, WY 760.793.3000 | 760.793.3000 | | alumaron@ymail.com | CA | San Pascual Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Tucker | Danny Tucker, Chapman, 5459 Sycuan Blvd. San Diego, CA 92121 | 619.445.1927 | | dtucker@tucker.com | CA | Sycuan Band of the Kumeyaay Nation | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Pico | Anthony R. Pico, Chapman, PO Box 908, AL 619.445.8810 | 619.445.8810 | | arpico@pico.com | CA | Vieta Band of Kumeyaay Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Chetman | Ben Chetman, 55 Vistas Grande Road, Alpine, CA 91901 | 619.445.0355 | | ben@chetman.com | CA | Kumeyaay Cultural Historic Committee | 06/7/2012 - letter returned | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Goff | Ralph Goff, Chapman, 3510 Church Rd., S1 Chapman, CA 95814 | 619.478.9046 | | rgoff@gooff.com | CA | Campo Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | (Jamar) | Chapman, Jamar Indian Village, PO Box 622 Chapman, CA 95814 | 619.669.4785 | | jamar@jamar.com | CA | Jamar Indian Village | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Romero | Maria Romero, Chapman, PO Box 270, Santa Chapman, CA 95814 | 760.782.3818 | | maria@romero.com | CA | Meza Grande Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Lucas | Carmen Lucas, PO Box 775, Pasa Valley, CA Pasa Valley, CA 91761 | 619.709.4037 | | | CA | Kwaayin Lakota Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Quina | Rebecca Quina, Spokane, 2005 S. Lincoln Spokane, WA 99205 | 760.777.8568 | | | CA | Inupat Band of Mission Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Beneas | Steve Beneas, Spokane, 1005 Barona Rd. Spokane, WA 99205 | 619.742.5537 | | stbeneas10@gmail.com | CA | Kumeyaay Cultural Regulation Comm. | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | McKin | Will McKin, Executive Director, 4054 Willow McKin, CA 95814 | 619.445.6315 | | will@mcin.com | CA | Ensalapap Tribal Office | 05/16/2012 - letter refused and returned | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Cercia | Michael Cercia, Vice Chapman, 4054 Willows Road, Alpine, CA 91901 | 619.445.6315 | | michael@vincerod.com | CA | Ensalapap Tribal Office | 05/16/2012 - letter refused and returned | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Linon | Chet Linon, Dr. Of Cultural Res., PO Box 50 Linon, CA 95814 | 760.803.5934 | | clinton@pac.com | CA | Ipa Nation of Santa Ysabel | 06/27/2012 - letter returned | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Kepart | Robey Kepart, Env. Coord., PO Box 130, SW Kepart, CA 95814 | 760.765.0845 | | rvkep@pac.com | CA | Santa Ysabel Band of Degeeno Indians | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Morris | Sydney Morris, Env. Coord., 5459 Sycuan Blvd. Morris, CA 95814 | 619.445.1927 | | smorris@bcwccs.com | CA | Sycuan Band of the Kumeyaay Nation | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Elliot | Larry J. Elliot, Chapman, PO Box 1302, Box Elliot, CA 95814 | 619.765.4810 | | larry@elliot.com | CA | Mazatzan Band of the Kumeyaay Nation | 05/17/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Guslate | M. Louis Guslate, PO Box 1982, Alpine, CA Alpine, CA 91901 | 619.972.8410 | | guslate@outlook.com | CA | Kumeyaay Degeeno Land Conservancy | 05/16/2012 - certified receipt received | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Brown | Frank Brown, Coordinator, 240 Brown Road, A Brown, CA 95814 | 619.884.6437 | | frank@brown.com | CA | Inter-Tribal Cult. Res. Prot. Council | 06/7/2012 - letter returned | | |
| 14-May-12 | Out | Certified letter | Shared Lands records search request results and request for participation in Project | Pajala | Bernice Pajala, Ws. Spokane, 1005 Barona Rd. Pajala, WA 99205 | 619.478.2113 | | | CA | Kumeyaay Cultural Regulation Comm. | 05/16/2012 - certified receipt received | | |
| 12-Jun-12 | In | Email | Request for Vegas monitor during all ground-disturbing activities | Hagen | Julie Hagen, Environmental Coordinator Hagen, CA 95814 | 619.659.2339; 619.800.2346 @ | | jhagen@vegas.com | CA | Vieta Band of Kumeyaay Indians | | | |

From: [Julie Hagen](#)
To: [Hoffman, Robin](#)
Subject: DPR Flume Trail
Date: Tuesday, June 19, 2012 8:24:16 AM

Hello,

I recommend that a Viejas Cultural Monitor be present when there is any ground disturbing activities. Thank you

Julie Hagen
Viejas Band of Kumeyaay of Indians
Environmental Coordinator
Phone: 619-659-2339
Cell: 619-890-2346